N.-W. P. AND OUDH.

FOREST DEPARTMENT.

ANNUAL PROGRESS REPORT OF ADMINISTRATION

FOR THE YEAR ENDING 31ST MARCH, 1889.

No. 68 of 1889-90.

FROM

C. BAGSHAWE, ESQ.,

CONSERVATOR OF FORESTS, CENTRAL CIRCLE,

NORTH-WESTERN PROVINCES AND OUDH,

TO

THE SECRETARY TO GOVERNMENT,

NORTH-WESTERN PROVINCES AND OUDH,

REVENUE (FORESTS) DEPARTMENT.

Dated Naini Tal, the 30th July, 1889.

SIR,

I HAVE the honor to submit the Annual Progress Report on Forest Administration in the Central Circle for 1888-89.

I have the honor to be,

SIR,

Your most obedient servant,

C. BAGSHAWE,

Conservator.

CENTRAL CIRCLE REPORT.

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CENTRAL CIRCLE.

N.-W. PROVINCES AND OUDH.

ANNUAL PROGRESS REPORT

OF

FOREST ADMINISTRATION

FOR THE YEAR ENDING 31st MARCH, 1889.

By C. Bagshawe, Esq., Conservator of Forests, Central Circle.

INTRODUCTION.

The year under notice has been one of steady progress, the area under fire conservancy has been increased by 57 square miles, or 5½ per cent. of the area of the Circle; the forests have been opened up by 108 miles of new road, raising the total mileage to 1,642 miles, and the export of timber and fuel has increased by 161,000 cubic feet, raising the yield to 1,248 cubic feet per square mile.

The revenue has increased by Rs. 72,383 to Rs. 5,32,833, the largest sum realized since departmental timber works were abolished; while the average expenditure has fallen and now stands at 48 per cent. of the receipts; and the net income has reached Rs. 156 per square mile.

2. During the year schemes for increasing the area of reserved forests in Kumaun, Garhwál, and in Jháns, have been drawn up, and the subject of the better management of Government waste lands in Kumaun and Garhwál has been under consideration. The Bánda reservation scheme is still pending, but will, it is hoped, shortly be sanctioned.

Some progress has been made in the preparation of temporary working plans, and forest organization in general has advanced.

CHAPTER I.

AREA AND BOUNDARIES.

1.—Area.

3. The areas of the different classes of forests in the Circle were as follows at the beginning and close of the year :—

Divisions.	Area on 1st April, 1888.	Added during 1888-89.	Excluded during 1888-89.	Area on 31st March, 1889.
	Square miles.	Sq. mls. A. R. P.	Sq. mls. A. R. P.	Square Miles.
Naini Tál ...	42	...	12 0 0 0	30
Kumaun ...	535	...	...	535
Garhwál ...	500	...	...	500
Ganges ...	349	0 266 0 0	0 328 0 0	349
Jhánsi ...	38	...	0 34 0 0	38
Lalitpur ...	140	0 100 0 0	...	140
Bánda ...	...	...	...	...
Total area, Reserved Forests	1,604	0 366 0 0	12 362 0 0	1,592
Naini Tál ...	69	...	4 207 0 0	64
Kumaun ...	...	...	...	...
Garhwál ...	...	...	...	...
Ganges ...	...	...	...	...
Jhánsi ...	...	...	...	...
Lalitpur ...	4	...	0 65 0 0	4
Bánda ...	...	...	...	...
Total area of Protected Forests	73	...	4 272 0 0	68
Bánda ...	118	...	...	118
Total area of unclassed State Forests and waste lands.	118	...	...	118
Grand Total, all Forests	1,795	0 366 0 0	16 634 0 0	1,778

In Naini Tal the reduction in area is due to the recalculation of area from the 4" maps, and the exclusion of demarcated village lands within forest bounds, which were formerly included within the gross forest area.

In the Ganges Division the reduction in area is due to the revision of the Chandi boundary, the exchanges made in straightening the boundary involving a net loss of 62 acres.

In the Jhánsi Division the area excluded has been made over to the Midland Railway.

In Lalitpur the Sairwans protected forest of 65 acres has been reserved and increased in area to 100 acres.

The calculations of the forest areas in the Circle leave much to be wished for in the way of accuracy.

In Kumaun and Garhwál the forest areas were sketched on 1" maps, and the areas calculated. The 4" Forest survey maps are now nearly complete and (aided by the deputation of subordinates from this Circle), the Superintendent, Forest Surveys, is now calculating the areas of our forests. I trust the work will be finished in 1889-90. In Jhánsi no one can explain the areas or make anything of the old maps, which perhaps eclipse most of their kind in inaccuracy, but the new survey now in progress will give us reliable areas and most useful maps.

In Lalitpur the areas are open to question and no new survey has yet been sanctioned.

In Bandá the revenue survey map is an admirable one and the areas are reliable.

4. The Fórest settlements in the proposed reserves of Khurpa Tál, Dabka, Dechauri, and Fatehpur (late Kumaun Iron Company's grant) and of Gagar Ninglat are now practically completed, a few appeals to the Commissioner alone being pending, and the final notification under section 19 will, it is hoped, issue by October, 1889. As noted last year these areas are in charge of the Forest Department.

5. No further notifications of proposed reservation of forests have issued, but schemes for taking up the following areas have been submitted :—

Naini Tal Division.—Dolmar-Morar chír forest area about 15½ square miles.

Ganges Division.—Chír, oak, sál and mixed forests near Kaludanda cantonment, area about 18½ square miles.

The examination of the Garhwál hill forests has been completed, and the question of their future management is now before Government.

Jhansi Division.—The reservation of eleven tracts of mixed forest and grass lands, aggregate area 7,481 acres, has been proposed. If sanctioned, this will, it is understood, dispose of all the Government waste lands in Jhánsi suitable for reservation.

Banda district.—The area of "purely Government forests" has been increased by the purchase for Rs. 1,300 of the zamíndárs' rights in half of Chulha, 751·19 acres, and the whole of Bhenda, area 777·96 acres; and the forest area now stands :—

	Acres.
Government Forests	55,775·14
Shared ⅓ Forests	19,679·04

The reservation of the purely Government forests is, it is understood, being recommended by the Board of Revenue, while the revision of the rules for the shared forests is still under discussion; any further addition to the forest area in Bánda now seems unlikely, but it is hoped the forests we now manage will be put on a sound footing.

2.—Boundaries.

6. The boundaries are, as a rule, in good order, and the rules as to inspection and maintenance are observed.

7. **Naini Tal Division.**—The erection of pillars in the new reserves has been completed. The revised boundary of the Ránikhet reserve with the cantonment has not yet been sanctioned by the Government of India in the Military Department, so permanent pillars have not yet been erected. Rs. 913-6-0 were spent on new demarcation, and

Rs. 177-2-5 on maintenance. The boundaries are generally in good order although complicated.

8. In Kumaun the boundaries are in good order: cost of maintenance Rs. 22; of completing the demarcation of the new reserves, Rs. 57-6-0.

9. **Garhwal Division.**—The boundary which includes 609 pillars and 3 miles 7 chains of cut line, has been kept in good order for Rs. 199-14-4. A dispute concerning part of the boundary of Rehar, the sole cause of which was an incorrect survey at the time of the revenue settlement, has since the close of the year been settled, the forest boundary being affirmed.

10. **Ganges Division.**—The Chandi forest boundary revision has been completed, the areas given up having been disafforested, and those acquired reserved under chapter II, Indian Forest Act. The boundary is now clearly marked by cut straight lines with pillars at the angles.

The Landhaura Ránis (Saháranpur) have taken their claim to the Ganges islands of the Chandi reserve into court. As noted last year, legal opinion is in favour of the right of Government to these islands, of which also we are in possession. The boundary pillars of the division are 637 in number, and the lines are 14 miles 38 chains in length; cost of new work, Rs. 584-7-3; of maintenance, Rs. 91-11-6. The total cost of the Chandi boundary was Rs. 604.

11. **Jhansi Division.**—In the Jhánsi Division the new survey brought some discrepancies to light between the boundary as pillared, as patrolled, and as shewn on the singularly incorrect old maps. These errors are now under settlement and some additional pillars built where necessary, while all the pillars are being numbered. The permanent pillars round the new reserve, Bajna, have been built. The cost of all this work, which is of much importance as preventing any disputes in future, will be heavy, and Rs. 696-12-10 have been spent during the year.

12. **Lalitpur Division.**—The boundaries are in good order. The new reserve, Sairwans, has been permanently demarcated, and Rs. 41 in all been spent on new pillars and on maintenance.

13. **Banda Division.**—The boundary pillars have been duly repaired for Rs. 40 and Rs. 100 spent in clearing 45½ miles of boundary line. This is the quota of line assigned for annual clearance, and the work has been done very cheaply.

CHAPTER II.

SURVEYS, WORKING PLANS, AND ANNUAL PLANS OF OPERATIONS.

1.—Surveys.

14. The work of the year is as follows:—

Forest Survey Branch—

(*a*)—Gagar—Niglat proposed reserve (Naini Tal) boundary pillars surveyed.

(*b*)—Dolwar—Morar forest (Naini Tal) field work completed.

(*c*)—Survey of revision of boundary Udepur and Chandi Forest (Ganges) completed.

(*d*)—Kumaun and Garhwál 4″ map sheets.

Previously issued ...	...	74 sheets.
Issued during the year	...	6 „
Due ...	...	1 „

Ganges Division sheet No 3.

(*e*)—2″ reduction of Kumaun and Garhwál 4″ survey.

Previously issued ...	...	80 sheets.
Received during the year	...	9 „
Due	...	42 „

Revenue Survey Branch—

(*a*)—The map Department has issued 4″ sheets 93 and 108 for Bánda, and we now have complete 4″ and 1″ maps of these forests.

(*b*)—Colonel Sandeman, Deputy Superintendent, Survey of India, in charge No. 5 party, has, under the sanction of Government, undertaken the survey

on an 8″ scale of the Jhánsi forests; work was started in January, 1889, and by the close of the season most of the boundaries had been surveyed.

(*c*)—**Lalitpur Division.**—A traverse survey of the district is being made in connection with the Jhánsi survey, and I trust a survey of the Forests will be sanctioned. The Lalitpur Forests are now the only unsurveyed forests in the Circle.

2.—Working plans and Plans of Operations.

15. The area of the Circle is worked as follows :—

	Square miles.
i. Managed under permanent Working plans, six in number	577
ii. Under temporary Working plans or 5 year Plans of operations, one in number	26
iii. A Plan is in preparation (the field work being completed) for ...	180
iv. Managed under annual plans of operations	995

Mr. Bryant, Officiating Deputy Conservator, was on special duty in connection with the Kohtri plan of operations combined with work in the District Forests, from the 11th December, 1888 to the 23rd March, 1889, and the difficulty experienced in affording Divisional Officers aid in drawing up temporary plans has alone prevented more progress.

The Ganges Working Plan (Mr. Hearle's) and the Rehar five year plan of operations (Mr. Bryant's) have been sanctioned during the year.

3.—Plans of Operations.

16. The annual plans of operations, which also include the work of the year in regular working circles, are drawn up before the Circle budget is framed.

Arrangements are made to carry on items of work which, owing to the shortness of the season or other causes, are not executed in the year for which they are originally entered.

During the past year the plans of operations have generally been fully carried out, and it seems needless to refer here in detail to unexecuted works which are noted in Appendix D.

CHAPTER III.

1.—Protection and Improvement.

17. The charge of the Circle was held throughout the year by the writer of this report.

18. Charge of the different Divisions was held as follows :—

Naini Tal	Mr. John Braidwood, Deputy Conservator, 3rd grade ...	1st April to 23rd March.
Ditto	Mr. F. B. Bryant, Deputy Conservator, 4th grade ...	From 24th March to close of year.
Kumaun	Lieutenant-Colonel Campbell, Deputy Conservator, 2nd grade.	Throughout the year.
Ditto	Mr. A. G. Hobart-Hampden, Deputy Conservator, 4th grade, attached to Division.	From 27th March to close of year.
Garhwál	Mr. F. B. Bryant, Deputy Conservator, 4th grade ...	From 1st April to 23rd August.
Ditto	Mr. S. Eardley-Wilmot, Deputy Conservator, 3rd grade,	From 24th August to close of year.
Ganges	Mr. A. F. Broun, Deputy Conservator, 4th grade ...	From 1st April to 19th July.
Ditto	Mr. F. B. Bryant, Deputy Conservator, 4th grade ...	From 20th July to 10th December.
Ditto	Mr. W. R. J. Brereton, Deputy Conservator, 1st grade...	From 11th December to close of year.
Jhánsi	Mr. R. G. Hardy, C. S., Deputy Commissioner ...	Throughout the year.
Lalitpur	Mr. J. V. Sturt, Assistant Commissioner ...	Throughout the year.
Bánda	Mr. H. Fraser, C. S., Collector ...	From 1st to 25th April.
Ditto	Mr. C. L. M. Eales, C. S., Collector ...	From 26th April to 3rd September
Ditto	Mr. G. A. Tweedy, C. S., Ditto ...	From 4th September to 15th October.
Ditto	Mr. C. L. M. Eales, C. S., Ditto ...	From 16th to 27th October.
Ditto	Mr. R. D. Spedding, C. S., Ditto ...	From 28th October to 31st March.

assisted by Messrs. Eales, Tweedy and Macleod, as Assistant Collectors, Karwi subdivision.

19. The grants for protective and office establishments were distributed as follows :—

Division.	Executive and protective establishment.							Office establishment.						
	Permanent sanction per annum.	Temporary sanction per annum.	Total sanction as it stood on 31st March, 1889.	Actual charges.				Permanent sanction per annum.	Temporary sanction per annum.	Total sanction, as it stood on 31st March, 1889.	Actual charges.			
				1887-88.		1888-89.					1887-88.		1888-89.	
	Rs.	Rs.	Rs.	No.	Rs.	No.	Rs.	Rs.	Rs.	Rs.	No.	Rs.	No.	Rs.
Direction	...	...	...	...	...	...	...	3,756	351	4,107	7	3,780	7	4,107
Naini Tal	3,684	1,476	5,160	53	4,723	55	4,898	840	240	1,080	3	1,077	3	1,066
Kumaun	8,880	6,282	15,162	136	13,363	149	14,081	2,136	...	2,136	6	2,135	6	2,128
Garhwál	10,608	6,522	17,130	159	15,862	153	16,452	1,941	...	1,941	6	1,895	6	1,937
Ganges	7,224	8,990	16,214	164	13,480	165	14,472	1,437	...	1,437	5	1,380	5	1,400
Jhánsi	1,164	396	1,560	19	1,373	22	1,544	60	...	60	1	60	1	59
Lalitpur	1,680	396	2,076	21	1,848	26	2,075	204	...	204	2	204	2	204
Bánda	1,440	96	1,536	13	1,522	13	1,536	780	...	780	3	780	3	780
Unallotted	360	...	360	...	...	...	...	...	...	...	...	...	...	...
Total ...	35,040	24,158	59,198	565	52,171	583	55,058	11,154	591	11,745	33	11,311	33	11,681

The savings were mainly due to the grant of recess leave.

20. The question of the necessity of the revision of the upper subordinate establishment of Sub-Assistant Conservators and Rangers has been under consideration, and it is hoped a scheme to provide for our most urgent necessities will soon be sanctioned. The Circle is divided into the following charges :—

Divisions.	Area. Sq. M.	Number Ranges.	Average area forest range. Sq. M.
Naini Tal	94	4	24
Kumaun	535	4	134
Garhwál	500	6	83
Ganges	349	5	70
Jhánsi	38	1	38
Lalitpur	144	1	144
Bánda	118	1	118

This is an increase of two ranges on 1887-88.

The ranges this year have been in charge of the following officers as compared with the previous year:—

		1888-89.	1887-88.
Forest Rangers,	3rd grade	1	1
Ditto,	5th ditto	2	2
Ditto,	6th ditto	1	1
Foresters,	1st ditto	6	6
Ditto,	2nd ditto	5	2
Ditto,	3rd ditto	3	3
Ditto,	4th ditto	3	3
Ditto,	5th ditto	...	1
Ditto,	6th ditto	1	1
	Total ...	22	20

Of the above, one Forest Ranger and four Foresters have passed through the Forest School.

The 22 ranges include 23 forester's beats, of which three are held by foresters who have passed through the Forest School.

We have, in addition, two Forest Rangers, Mr. Haslett and Lala Parshadi Lal, who have just passed their final examination, and will for some time be employed on special duty.

The following probationers have joined the Ranger's class in the Forest School.

Babu Kishna Nand Joshi	2nd year.
Babu Netra Ballabh	1st year.

Mr. Martin is on probation in the forests.

The following private students have joined the Ranger's class in the school on nomination from the Central Circle.

Mr. F. Ryan	1st year.
Munshi Mehdi Husain	1st year.

We therefore stand as follows with regard to trained subordinates :—

	No.
Passed Rangers	3
Probationer Rangers at the school	2
Private students at the school	2
Probationers in the forests	1
Total ...	8
Add Passed foresters	7
GRAND TOTAL ...	15

Considering that we must allow five years for the training of a Ranger, *i.e.*, including probation in the forests, the school course and practical training after leaving the school, the progress made is slow, and as the difficulty of procuring suitable candidates is now overcome, I hope an additional number of probationers will be sanctioned.

There is no doubt that to carry out the work in hand, the Circle requires four Sub-Assistant Conservators and 20 Forest Rangers as compared with one Sub-Assistant Conservator, six Forest Rangers, and 15 Foresters, who are now less or more satisfactorily doing Ranger's work and who should obtain the promotion they have or will shortly earn, or else be replaced by more responsible subordinates.

21. With regard to present Range Officers :—

In Naini Tal, Foresters Budhi Ballabh, Jodh Singh and Deb Singh are well reported on, the fourth Range Officer had recently joined.

In Kumaun, Forest Ranger Bakhtawar Singh, and Forester Bhawani Datt's work is commended, while Foresters Uttam Singh and Hari Ram worked fairly. In Garhwál, Forest Rangers Parja and Chintamani, Foresters Fateh Singh and Badri Datt are all well reported on, though lack of experience and a heavy charge caused Chintamani to fail in some of his work.

In the Ganges Division, Forester Kalian Singh is well reported on; Foresters Bahal Rai, Barkat-ullah Khan, Bagh Singh and Upendra Datt are fairly reported on, but the Divisional Officer urges the importance of posting a higher stamp of Range Officer to the most important ranges of the Division.

In Jhánsi, the Forester Debi Parshad is a well meaning and reliable man, but the Deputy Commissioner thinks with reason that he is not up to the work now demanded of our Range Officers. In Lalitpur, Forester Muhammad Husain continues to work hard and to give satisfaction.

In Bánda, Forester Karim Bakhsh, though a very good man, is not up to the work proposed over the scattered forests of the Division and, as soon as the orders of Government regarding these forests are received, proposals for further revising the establishment will be submitted.

2.—General protection and breaches of the Forest Law.

22. The general protection has been most successful on the whole, the exercise of rights or privileges continuing, as may be expected to be, the most difficult to control, but even under this head there is little to complain of. In no division is there reason to suppose there is any laxity as to protection.

The following is a comparative abstract of forest criminal cases :—

Divisions.	Year.	Cases before the Courts including cases pending from the previous year.	Prosecutions.				Cases pending.		Remarks as to by what Court tried.	Cases compounded by Divisional Officer under section 67, Indian Forest Act.		
			Convictions.		Acquittals.							
			Cases No.	Persons No.	Cases No.	Persons No.	Cases No.	Persons No.		Cases.	Persons No.	Amount received in compensation.
												Rs.
Naini Tal ...	1887-88...	38	19	37	19	48	...	...	Divisional Officer. 17 cases, Cantonment Magistrate, 21.	355	608	688
	1888-89...	24	17	45	7	48	...	...	Divisional officer 24 cases.	372	587	1,058
Kumaun ...	1887-88...	2	2	11	...	...	...	...	District officer ...	34	57	370
	1888-89...	2	2	2	...	...	...	...	Ditto ...	86	107	599
Garhwál ...	1887-88...	2	...	...	1	13	1	2	Ditto ...	58	90	468
	1888-89...	2	1	1	...	1	1	13	Ditto ...	46	76	356
Ganges ...	1887-88...	8	6	7	1	5	1	1	Ditto ...	78	99	663
	1888-89...	2	1	2	1	1	...	...	Ditto ...	67	101	534
Jhánsi ...	1887-88...	3	3	5	...	...	...	...	Ditto ...	...	...	...
	1889-89...	1	...	...	1	1	...	...	Ditto ...	1	1	1
Lalitpur ...	1887-88...	14	10	22	4	5	...	...	Ditto ...	3	26	67
	1888-89...	5	3	8	2	4	...	...	Ditto ...	...	...	...
Bánda ...	1887-88...	9	9	14	...	1	...	...	Ditto ...	...	...	...
	1888-89...	12	12	58	...	...	...	...	Ditto ...	...	...	...
Total for Circle.	1887-88...	76	49	96	25	72	2	3	...	528	880	2,256
	1888-89...	48	36	116	11	55	1	13	...	572	872	2,548

The classification of the cases compares as follows :—

	1887-88 No.	1888-89. No.
i—Injury from fire	30	19
ii—Illicit felling or appropriation of produce	451	352
iii—Illicit grazing	21	14
iv—Other offences	118	235
Total ...	620	620

The number of cases in court has decreased by 28 or 37 per cent., but the number of persons involved has increased by 13, convictions remaining at 75 per cent.

The compounded cases have increased by 24 or 18 per cent., but the number of persons decreased by eight, while the average compensation paid by each person has increased from Rs. 2·57 to Rs. 2·92.

The differences are so slight that they call for no special remark.

The most noteworthy cases are as follows :—Kumaun Division, deliberate firing of Horai forest, for which six months' imprisonment was awarded, and illicit felling of sál near Chorgallia, three months and Rs. 100 fine; while in the Garhwál and Ganges Divisions the change in rules regarding bamboo cutting has worked well and led to a decrease in cases.

3.—Protection form fire.

23. The fire conservancy work of the past five years compares as follows :—

Year of fire season	Area in which protection was attempted. (i) By means of a regular system of fire lines and watchers.	Area in which protection was attempted. (ii) By the ordinary establishment under administrative orders and with the aid of the villagers or trifling expenditure on watchers, &c.	Area in which protection was attempted. Total of (i) and (ii).	Failures.	Area actually protected.	Cost of the operations of the year.	Cost. Per acre attempted.	Cost. Per acre protected.	Percentage of the area attempted to total area of the forest.	Percentage of failure to the total area attempted.
	Acres.	Acres.	Acres.	Acres.	Acres.	Rs.	Pies.	Pies.	%	%
1885 ...	245,120	...	245,120	531	244,589	15,966	12·50	12·53	24·39	·21
1886 ...	255,042	...	255,042	270	254,772	18,224	13·72	13·73	23·78	·10
1887 ...	298,870	...	298,870	22,964	275,906	16,872	10·84	11·74	27·86	7·61
1888 (i) ...	332,023	...	...	4,083	327,940	17,839	10·31	10·44	30·94	1·22
„ (ii) ...	...	58,812	...	3,064	55,748	96	0·31	0·33	5·38	5·21
Total ...	...	...	390,835	7,147	383,688	17,935	8·81	8·97	36·43	1·82
1889 (i) ...	368,400	...	...	2,036	366,364	18,717	9·48	9·81	34·67	0·55
„ (ii) ...	...	58,812	...	561	58,251	102	·33	·33	5·53	·95
Total of year 1889,	...	...	427,212	2,597	424,615	18,819	8·45	8·50	40·21	·61

In form 51, which gives the areas protected from fire, the column "area actually protected up to 30th June, 1888" shows the figures returned in last year's report. During the past year the Survey Department has given us corrected areas of most of the fire protected tracts, and these revised areas are entered in the column "attempted 1889." As many of the old areas were calculated from the 1″ maps on which the fire protected tracts and forest boundary were of necessity only entered roughly, considerable discrepancies have been corrected. In the abstract above the latest corrections of area have been applied to the returns of the previous five years; the comparison is therefore as accurate as possible.

The areas brought under regular protection in 1888-89 are as follows :—

	Acres.
Kumaun Division	7,073
Garhwál ditto	6,788
Ganges ditto	22,541
Total ...	36,402

The areas protected by the ordinary establishment, aided by villagers, are the same as last year; no extensive area of forest, not under protection, remained unburnt, save in Bánda Division where 46,820 acres escaped fire, and 28,634 were burnt against 31,084 burnt in 1888.

The season was a curious one, as the late winter rains postponed the outer line burning until March and April, and rendered these operations perilous, the result was the outer forest was not always cleanly burnt and the additional risk was considerable: we have therefore to be thankful for the early break of the monsoon, which put an end to the great risk endured in April, May, and the early part of June.

The returns for the year show the following results as compared with 1888 :—

I.—	Increase in area attempted	36·377 Acres.
II.—	„ „ „ protected	58·251 „
III.—	„ „ percentage of total forest under protection ...	5·54 per cent.
IV.—	Increase in expenditure	874 Rs.
V.—	Percentage of failures ·61 ; decrease	1·21 per cent.
VI.—	Area attempted in hills, 68,291 acres ; decrease	25 acres.
VII.—	„ „ „ plains 3,58,021 „ ; increase	36,402 „
VIII.—	Cost per acre attempted pie 8·45 „ ; decrease pie ...	0·36
IX.—	„ „ protected „ 8·50 „ ; ditto ...	0·47
X.—	„ „ of hill forest attempted pie 2·43 acres ; decrease pie	0·57
XI.—	„ „ „ plains „ „ 9·50 „ ; ditto	0·21

The expenditure of the year included capital expenditure on new lines of Rs. 193 in Kumaun, Rs. 1,196 in Garhwál and Rs. 573 in Ganges Divisions, or Rs. 1,962 in all; equal to pie 1·4 per acre, which reduces the normal charges to 7 pie an acre. It is unlikely if we continue extensions as proposed that the gross expenditure will decrease, though the acre rate will of course be lower.

24. Turning to the records of each Division the following embraces the main features of the work of the year :—

Division.	Area attempted.				Area protected.		Failures.				Cost.		Cost per acre attempted in pies.	
	Acres.		Percentage of total area of Divisions (including proposed reserves).				Acres.		Percentage of area attempted.					
	1889.	1888.	1889.	1888.	1889.	1888.	1889.	1888.	1889.	1888.	1889.	1888.	1889.	1888.
											Rs.	Rs.		
Naini Tal	68,291	68,316	95·06	95·75	65,880	63,930	2,411	4,386	3·53	6·42	867	1,069	2·43	3·00
Kumaun	51,304	44,296	14·98	12·93	51,123	44,210	181	86	0·35	0·19	4,223	3,245	15·80	14·06
Garhwál	203,766	196,978	63·72	61·60	203,766	194,322	....	2,656	...	1·35	11,263	11,778	10·61	11·48
Ganges	54,003	31,462	24·20	14·08	54,003	31,446	...	16	...	0·05	2,266	1,693	8·06	10·30
Jhánsi	23,945	23,945	100·00	100·00	23,945	23,945	...	...	...	...	100	50	0·80	0·40
Lalitpur	25,903	25,838	27·91	26·20	25,898	25,835	5	3	0·02	·01	100	100	0·74	0·74
Totol ...	427,212	390,835	40·21	36·43	424,615	383,688	2,597	7,147	0·61	1·82	18,819	17,935	8·45	8·81

The reduction in cost in Naini Tal is due to the completion of the new lines in the Ránikhet reserve.

In Kumaun the increase is due to some of the lines being increased in width, as the narrow lines in some of the forests involved too much risk.

In Garhwál some of the fire lines have been reduced, and Mr. Wilmot has also been successful in lowering rates.

In the Ganges Division Mr. Brereton has made large extensions at moderate rates and the increased area has lowered the acre rate.

In Jhánsi and Lalitpur the continued success in fire conservancy is most satisfactory, while the expenditure is almost nominal.

25. The following is a summary of the fires that have occurred during the past year and previous four years :—

Year.	By the forest establishment when burning fire lines, &c.		Fires which entered the forests by crossing exterior fire lines.		By workmen (not in forest employ) by accident.		By villagers, travellers, or soldiers by accident.		Fires caused by lightning or fire balloons.		Maliciously lighted inside the forests.		Cause unknown.		Total.	
	No.	Area in acres.	No.	Area in acres.	No.	Area in acres.	No.	Area in acres.	No.	Area in acres.	No.	Area in acres.	No.	Area in acres.	No.	Area in acres.
1889 ...	2	980	5	746	...	...	7	787	...	...	1	14	5	70	20	2,597
1888 ...	5	613	1	365	3	363	3	239	3	658	7	3,950	9	959	31	7,147
1887 ...	3	284	3	6,768	5	80	47	7,717	1	10	4	7,707	7	398	70	22,964
1886 ...	6	196	...	...	2	49	1	8	...	...	1	17	...	...	10	270
1885 ...	1	160	...	...	...	...	5	156	...	...	5	215	...	...	11	53

A detailed account will be found in Appendix E.

4.—Grazing and Fencing.

26. The areas closed to grazing, save by exporters cattle during the main export season November to March, are given in Appendix F. The closed tracts in 1888-89 amount to 496 square miles or 27·89 per cent. of the total forest area opposed to 24·89 per cent. in the previous year.

The grazing and grass sales of the year compare as follows :—

	1887-88.	1888-89.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
Grazing	18,692	22,505	3,813	...
Grass sales	5,938	5,377	...	561
Total ...	24,630	27,882	3,252	...

The chief increase is in Naini Tal, Rs. 1,200, and in the Ganges, Rs. 1,872, due in the first instance to careful fostering and to improved arrangements for selling fodder grass, and in the latter to the introduction of the enhanced grazing dues. There is a small increase in all the other Divisions, save Jhánsi, where less was received by Rs. 690, chiefly on account of delayed payments for grass lands. The charge for grazing is still nominal in amount and returns only 5·26 pie per acre, while the free grazing is estimated at 1 anna 8 pies per acre. Any steps to encourage the use of the fodder reserves and closed forests and to improve the system of cattle keeping have failed save in Bundelkhand.

27. In Naini Tal no change in the closed area has been made, as the closure scheme for Ránikhet has not yet been completed. The Ránikhet fencing, at present of wood, is being changed for barbed wire with iron standards where trees cannot be used : the change is made for economy both in the use of wood and in the annual cash charges.

28. In Kumaun there is an increase of 11,676 acres in the closed area, while grazing is nowhere excessive in the more valuable reserved forests.

29. In Garhwál there is a nominal decrease of 2,440 acres owing to revision of area, and it has not been possible to close any of the more heavily grazed tracts.

30. In the Ganges Division the area has increased by 22,694 acres. The damage from Gújar cattle has ceased. The Deoli grazing dispute has been settled by the rejection of the claim to a right, but access to some watering places within forests free of right has been conceded as a yearly privilege in return for aid in fire conservancy.

31. In Jhánsi no change in area has taken place, and the return per acre continues the best in the circle.

32. In Lalitpur the Sairwans grass reserve, 100 acres, has been formed to increase the grass supply for the wants of the station but the results do not appear in the year under review.

33. In Bánda no change is reported and, as previously stated, over-grazing is exceptional.

5.—Natural Reproduction.

34. The main features of the year are a heavy and general fall of sál seed and the absence of seed in the chír forests. The last heavy falls of sál seed were in 1887 and 1884; while chír seeded freely in 1887. The fire in the Ránikhet reserve has not had the anticipated effect of inducing a profuse production of seed. The year has also been notable for the absence of severe frosts and the results are satisfactory. In Udepur (Ganges) and Dharon (Garhwál) bamboos have seeded somewhat more extensively than in ordinary years, but there is apparently no reason to apprehend a general seeding in any part of Kumaun.

The result of protection from fire and grazing is naturally uneven; where the soil and cover are favorable to reproduction of sál and other valuable trees, we find tracts completely stocked with seedlings or poles of sál, &c., and in forests where protection has been successful for 10 or 12 years the growth is so dense that an elephant can hardly push through and grass has entirely disappeared. The bamboos are being pressed out of forests of this class or where the cover generally is becoming heavy, and fire conservancy will, undoubtedly, reduce the bamboo area, a loss which it is hoped will more than be made good in the forests where bamboo predominates.

On the other hand there are inequalities in results in some forests which it is hard to explain; thus in seven forests, Salani, Jaunla Sál, Rehar, Gewai, Horai, Garhibulchand and Hazara which have been more or less successfully protected from 7 to 12 years, which are fairly similar in soil and position, but in which the results differ most markedly, in the three first the reproduction is very good, in the last two it is disappointing. Again in grassy areas (not marshy as in the case of the Oudh phantas) within or on the edge of protected forests, the spread of tree growth is slow in the extreme. Mr. Wilmot mentions two instances (*viz.*, the "Dhikala flat" South Patli Dún and "Chopra" in Kota where after many years of protection (12 years in the first instance) grass areas of this class were this year burnt, and the result of many fruitless hunts for seedlings have been fully borne out, as no remains of reproduction could be found.

Mr. Wilmot suggests that these grass lands should, as far as possible, be burnt annually early in the season until the year comes, after a good fall of seed, when some seedlings are to be seen. There is no doubt that the fire protected grass in open spaces often 9-15 feet high becomes matted and impenetrable, so that seed falling on old grass does not reach the ground and cannot germinate. In the areas fire protected but grazed over the results generally vary with the amount of grazing, but even here they fully repay protection from fire, and over considerable areas both in hills and plains the good effect of protection is marked. Turning now to the forests not protected from fire, the hardy character of sál, teak, deodár, chír and our other principal trees at once strikes the most casual observer, and in remote forests lightly grazed or ungrazed, lightly worked, and which occasionally escape fire, the result is reproduction of the most satisfactory description; on the other hand where the circumstances are less favourable, deterioration is distressingly apparent and objectionable from the physical and mental strain it involves, as fire conservancy is to a forest officer, and the advisability of extending protection at once suggests itself.

Messrs. Brereton, Campbell and Wilmot have all recorded interesting notes on the subject of natural reproduction; but I regret the limit of space forbids their insertion here.

6.—Artificial Reproduction.

35. As usual artificial reproduction in regular plantations has been confined to our hill forests, where the demand is outgrowing our resources. Petty cultural operations on a limited scale are in progress in all Divisions. Fair success has been attained with moderate expenditure and no unnecessary work has been attempted.

Rupees 1,784 have been spent on regular plantations against Rs. 1,715 in 1887-88, and Rs. 1,266 on cultural operations against Rs. 792 in the previous year. The area under planting is reduced from 1,418 acres to 1,093 acres, owing to the transfer of 534

acres in Jhánsi from the charge of the special nursery establishment to the ordinary protective establishment.

36. **Naini Tal Division.**—In the Naini Tal Forests Rs. 77-10-0 were spent in putting out 2,316 deodár, walnuts, ash and kail, and in small nurseries for future planting; the area worked in was the China closed block, area about 147 acres. In Ránikhet Rs. 1,784 were spent on the nursery, and Rs. 246-7-0 in making good damage done to former plantations and blanks caused by the 1887 fire: 25,470 deodár and cypress plants were put out, the work being in Mr. Craw's charge.

In both forests good results were obtained.

The Chaubattia garden is in charming order and condition. The sowing of fruit and forest trees was continued, 312lbs of the latter being sown to meet the special demands the fire has caused: germination has been good and the seedlings are doing well.

The distribution of trees outside the forests compares as follows with that of the two previous years:—

	1886-87.	1887-88.	1888-89.
Fruit trees	9,279	11,600	14,398
Forest trees	4,619	13,376	4,704

Reports on the growth of trees issued are generally good, but it is to be regretted that in the Kumaun district where villagers and house owners last year drew 11,617 trees, no agency is, as suggested by the Commissioner, employed to aid in the treatment of the fruit gardens started. In many cases, however, Mr. Craw has supplied gardeners trained at Chaubattia. The fruit sales for the past four years are as follows:—

	1885-86.			1886-87.			1887-88.			1888-89.		
	Seers.	Rs. a. p.		Seers.	Rs. a. p.		Seers.	Rs. a. p.		Seers.	Rs. a. p.	
Cherries ...	77	102 0 0		192	92 10 0		63	43 11 3		81	97 0 0	
Apricots ...	1,431	314 0 0		2,297	247 8 0		2,120	100 0 0		8,826	309 0 0	
Peaches ...	180	142 0 0		608			242			242		
Plums ...	153	184 0 0		127	602 10 0		175	80 0 0		175	80 0 0	
Apples ...	2,857	895 0 0		2,078			3,549	610 0 0		8,803	920 0 0	
Pears ...	272	241 0 0		105			47	20 0 0		47	41 0 0	
Total ...	4,970	1,878 0 0		5,317	942 12 0		6,196	856 11 3		17,950	1,447 0 0	

The increase in quantity is marked. The fruit (save the cherries) is sold by auction in May and July, and for 1889 has realized Rs. 1,649, the highest sum since retail sales on commission were given up in 1885-86. The stock of trees in the nursery compares as follows:—

	1887-88.	1888-89.
Fruit trees	61,240	56,470
Forest trees	338,560	92,881

37. **Kumaun Division.**—Rs. 380 have been spent on the Haldwani and Chorgallia gardens, where we are putting out fruit trees and rearing trees for groves elsewhere. The sales of surplus fruit will soon repay the expenditure.

38. **Garhwal Division.**—The open grassy area sown at Chopra in Kotah with the seeds of soft wood (for nurses to sál, &c.,) is doing well, but it is too early to form an opinion as to whether this is the best way of filling up our large blanks; the cost was Rs. 6.

Rupees 93 were spent on gardens and groves.

39. **Ganges Division.**—No new work was started, but Rs. 70 were spent on gardens and groves.

40. **Jhansi Division.**—The concentration of planting work referred to last year has been carried out, and 534 acres put under forest guards without any special establishment under them. The Dhukwan and Sukhwan plantations of teak, bamboo and shisham were doing well, and the experiment of planting under the shade of other trees seems likely to succeed.

41. **Lalitpur Division.**—Mr. Sturt takes a great interest in planting work and has been trying to introduce tun and other valuable trees with good results. The expenditure was Rs. 54.

42. **Banda Division.**—The experiments in teak were continued, but the Collector is disappointed with the results.

7.—Climber cutting.

43. Climbers were cut in the three Sub-montane Divisions :—

	Square miles.	Cost. Rs. a. p.	Rate per Rs. a. p.
1888-89	30	1,031 12 2	34 6 3
1887-88	18	859 14 8	47 12 0

The reduction in cost is mainly due to the climbers being less numerous in the areas, but great care too has been taken to keep down rates.

Taking the work by divisions the details are as follows :—

44. **Kumaun Division.**—

	Acres.	Rs. a. p.
Dulagadh, Nindhaur working Circle ...	3,014	125 9 4
Nindhaur	4,384	91 5 4
Chandni	334	20 14 0
Jaunla Sál	162	10 1 6
Horai	1,257	79 9 0
Total ...	9,151	327 7 2

Highest rate 1 anna ; lowest, 4 pies ; average, pies 6·9 per acre against annas 1·27 last year.

45. **Garhwal Division**—

	Acres.	Rs. a. p.
Kota Block I, compartments 5, 6	2,016	189 0 0
Rehar compartments "A and B"	1,807	96 3 0
South Patli Dún	2,977	279 1 6
North Patli Dún, Block III, Compartments 15 to 19 ...	1,345	63 0 9
Total ...	8,145	627 5 3

Highest acre rate, pies 20·4 ; lowest, pies 9 ; average, pies 14·8 against annas 1·13 in 1887-88.

46. **Ganges Division.**—

	Rs. a. p.
Kohtri, Sots Bahera and Am, 2,030 acres. @ 7·2 pies per acre	76 15 2

In 1887-88 the rate was 1·5 annas per acre.

8.—Experiments and Exotic trees.

47. The observations as to the growth of sál in the fourteen plots selected in the Kumaun, Garhwál, and Ganges Divisions, and in equal proportions in the inner and outer forests, have been continued, and the measurements made are given in abstract in Appendix G. In the Dungalgarh (Garhwál) sál seedling plot 130 seedlings were counted in April, 1889, as compared with the previous year's count, paragraph 52, 1887 Report.

In Chaubattia the new apple, pear and other seeds germinated well, and acacia, gum, and sweet chesnut seeds saved from the garden and plantations have germinated and are doing well.

9.—Communicatons, Buildings and other Works.

48. The year has been one of marked progress both in roads and buildings. Forty-five miles of cart road, 18 miles birdle road, and 45 miles of path, total 108 miles, having been made, and 1,534 miles kept in repair : 31 new buildings have been built and 125 kept in repair.

Besides the above 28 miles 72 chains of temporary roads were made for Rs. 696 paid from A.II.

The most important road work of the year was in Kumaun, where 17 miles of cart road to open up the hitherto inaccessible forests of the Sarra or Kalaunia nadi were made, and in Garhwál 6 miles of cart road, opening up the Adnala basin of the North Patli Dún, were constructed; while in all Divisions but particularly Kumaun, the erection of accommodation for officers and subordinates was pushed on. Colonel Campbell brings Mr. Blanchfield's name specially to notice in connection with the roads and buildings in Kumaun, and I fully endorse his warm approval of Mr. Blanchfield's thorough and economical work.

The expenditure is grouped as follows :—

Year.	Roads and bridges.	Buildings.	Other works.	Total.
	Rs.	Rs.	Rs.	Rs.
1888-89	35,028	16,651	470	52,149
1887-88	27,995	16,050	316	44,361
1888-89 increase ...	7,033	601	154	7,788

The capital and maintenance charges for the past two years compare as follows :—

ROADS.

	1888-89.	1887-88.
	Rs.	Rs.
Capital expenditure	15,865	7,464
Maintenance charges	19,163	20,531

It is satisfactory that the cost of road repairs is being kept at a low figure, the average rates per mile being, cart roads, Rs. 22-8-0, birdle-paths, in plains, Rs. 6-4-0; in hills, Rs. 2-8-0, and fire and inspection paths, Rs. 3-8-0.

Considering the difficult ground the Sub-Himalayan roads traverse and the destruction each monsoon causes, these are very low rates. The forests of the Circle being worked by direct and not departmental agency, and the workings spread over large areas, the thorough opening up of the forests is one of our most important works, as on the roads the revenue depends; so that the steady improvement in communication is a matter for congratulation.

BUILDINGS.

	1888-89.	1887-88.
	Rs.	Rs.
Capital expenditure	14,696	13,060
Maintenance charges	1,955	2,390

The capital charges are distributed as follows :—

	1888-89.	1887-88.
	Rs.	Rs.
Buildings for controlling staff	8,620	8,673
Ditto subordinates	6,076	4,987

The work was done at fair rates; single storied, pakka masonry, iron roofed, buildings ranging from Re. 1-8-0 to Rs. 2-4-0 per superficial foot; and the progress made in this work is most satisfactory.

OTHER WORKS (WELLS, &c).

	1888-89.	1887-88.
	Rs.	Rs.
Capital expenditure	400	223
Maintenance charges	70	93

The number of wells yet to be made is not large.

(a).—Roads.

49.—

Description of roads.	Length in miles in each Division.							Total in Circle.	
	Naini Tal.	Kumaun.	Garhwál.	Ganges.	Jhánsi.	Lalitpur.	Bánda.	1888-89.	1887-88.
In the Bhábar and in the plains.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Cart roads	...	203	281	213	15	18	24	754	709
Bridle roads	...	65	199	66	...	...	...	330	328
Fire and export paths	...	87	281	86	...	...	...	454	409
In the hills.									
Cart roads	2	...	...	...	...	...	...	2	2
Bridle roads	102	...	...	...	...	...	...	102	86
Total, 1888-89 ...	104	355	761	365	15	18	24	1,642	...
„ 1887-88 ...	88	318	742	329	15	18	24	...	1,534
1888-89 Increase, miles ...	16	37	19	36	...	...	...	108	...

50. **Naini Tal Division.**—Six miles of new bridle road for export, &c., have been made for Rs. 458, average per mile Rs. 28·6, and eighteen miles of paths (including 2 miles cart road) kept in repairs for Rs. 236, average Rs. 2·7 per mile.

	1888-89. Rs.	1887-88. Rs.
Capital charges	458	981
Maintenance...	237	254
Total ...	695	1,235

51. **Kumaun Division.**—The following new roads were constructed :—

	Miles.	Chains.	Rs.	a.	p.
Sarra Nadi (or Kalaunia) cart road, Nandhaur working circle,	11	40	=7,243	15	8
Danda and Sarra Nadi ditto ...	6	10	=885	2	7
Garapu Pipal Parau cart road	2	0	=50	0	0
Danda Dhanaur 5 foot path	6	59	=464	7	0
Jaunla Sál Danda ditto	3	9	=185	10	0
Ganja Sot ditto	0	55	=34	6	0
Dhanaur Sarup ditto	1	60	=70	0	0
Kalaunia Airadeo ditto	6	0	=72	0	0
Chorgalia, Sanman and Lakman ditto	2	1	=30	0	6

The Sarra Nadi or Kalaunia road is a very important work, as it opens up a large area of practically unworked forest, for the produce of which remunerative prices have been obtained this season.

	1888-89. Rs.	1887-88. Rs.
Capital charges	9,035	902
Maintenance, 318 miles road	5,164	5,121
Total	14,199	6,023

52. **Garhwal Division.**—The new roads are :—

	Miles.	Chains.	Rs.	a.	p.
Amangarh Taikhana cart road	2	60	143	1	4
Adhnala	3	7	3,838	1	7
Ditto upper section ditto (part payment)	3	0	1,636	0	0
Garhibulchand Patrampur ditto	3	1	97	12	4
Ram Tal 6 foot path	1	36	11	9	7
Peli Puchre ditto	2	76	23	9	7
Koksad Deokunda ditto	1	24	26	0	0

Besidés the above Rs. 11-4-0 were paid for the Garhibulchand cart road after the close of the year, and Rs. 120 for a mile's extension.

	1888-89. Rs.	1887-88. Rs.
Capital charges	5,776	8,925
Maintenance, 742 miles	8,925	9,958
Total ...	14,701	18,884

53. **Ganges Division.**—New roads :—

	Miles.	Rs.	a.	p.
Lal Dhang Shampur cart road	7·44	276	13	0
Hazara 5 foot path	2·70	28	12	0
Regudi Sot ditto	5·56	76	6	0
Deokunda path	1·27	23	6	0
Gaugar Chaukhamb foot path	7·30	83	12	0
Sona Nadi ditto	13·71	107	11	0

Because it is, as a rule, easily accessible, and is in many places traversed by old time tracks, the Ganges division roads are the worst and most backward in the Circle. During the past three years Messrs. Brereton and Broun have pushed on the improvement of existing lines and the opening up of inaccessible forests, and during the past season much very good and yet cheap work has been done, and work on these lines must be carried on in future years.

	1888-89.	1887-88.
	Rs.	Rs.
Capital charges	596	*Nil.*
Maintenance, 329 miles	3,992	4,822
Total ...	4,588	4,822

Rupees 271 remained payable at the end of the year for maintenance.

54. **Jhansi Division.**—Rs. 60 were spent on maintaining 15 miles of road against 75 in 1887-88.

55. **Lalitpur Division.**—Rs. 250 were spent on 18 miles of road against the same sum in 1887-88.

56. **Banda Division.**—Rs. 50 were spent on the Kaluwa road, 7 miles. The other roads called for no expenditure.

(*b*)—BUILDINGS AND OTHER WORKS.

57. The following buildings and wells were constructed or maintained :—

Description of building.	For Controlling Officers.		For subordinates excluding Revenue depôts.		Officers' stores and Revenue depôts.		Total number of buildings.		Wells.	
	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.
Permanent,	32	24	34	23	46	40	112	87	8	8
Semi-permanent.	7	6	29	24	7	7	43	37	...	...
Temporary,	...	...	1	1	...	...	1	1	3	3
Total ...	39	30	64	48	53	47	156	125	11	11

The above information by divisions is given in Appendix H.

58. **Direction Division.**—Rs. 527-2-6 were spent in sharing the charge for putting a second story to the Forest offices, a much needed addition, as five offices had to be housed in a building originally designed for two only. The total charge is Rs. 2,000.

59. **Naini Tal Division.**—

	Rs. a. p.
Construction Bellekh two roomed house	1,246 9 4
Ditto Kathalekh guard's house	75 0 0

	1888-89.	1887-88.
	Rs.	Rs.
Capital charges	1,322	...
Maintenance, 21 buildings	28	305
Total ...	1,350	305

60. **Kumaun Division.**—The following new buildings were in hand and completed during the year :—

	Rs. a. p.
Completion—Dhanaur Chaur Forest house (Total cost, Rs. 1,086-6-3) ...	350 0 5
Ditto Saina Pani ditto (Total cost, Rs. 1,123-4-11)	604 4 0
Ditto Range and Subordinates' quarters, Aonla Khera, (Total cost, Rs. 1,099-7-1)	20 15 6
Improvement—Forest Office, Haldwani	83 4 8
Addition to Forest Office, Naini Tal	600 0 0
Erection—Horai rest-house	864 1 2
Ditto Horai out-houses	61 9 8
Ditto Tanakpur depôt building	534 10 1
Ditto Rinsali ditto	352 7 5
Ditto Jaunla Sál out-houses...	351 5 8
Ditto Haldwani ditto	100 0 0
Ditto Banda Katauti	300 0 0
In part charges of Banda Katauti rest-house (Total to date, Rs. 1,8[illegible]8-10-0) ...	722 14 1
Enclosure Haldwani office compound	261 9 4

Rupees 691-2-7 were spent on the repairs of 27 buildings.—

	1888-89. Rs.	1887-88. Rs.
Capital expenditure	5,207	6,871
Maintenance	691	481
Total ...	5,898	7,352

61. **Garhwal Division.**—The construction charges of the year are as follows :—

	Rs.	a.	p.
Completion—Haldua Revenue Depôt (Total cost, Rs. 482)	182	0	0
Ditto—Patrampur ditto (Total cost, Rs. 494-6-6)	94	6	6
Construction—Garjia rest house	1,250	0	0
Ditto Kakarbari Foresters' quarters	130	0	0
Ditto Tirath Foresters' quarters	143	3	6
Ditto Amsot Revenue Depôt	366	11	3
Ditto Garjia out houses	300	10	8
Ditto Garjia Forest guards' quarters	198	15	2
Ditto Maldhan Forest guards' quarters	50	0	0
Ditto Garral out houses, in part	200	0	0
Ditto Amangarh	200	0	0
Ditto Boxar Foresters' quarters, in part	100	0	0
Ditto Dhikala, in part	100	0	0
Enlargement, Naini Tal Forest office	633	5	4

Rupees 624-14-8 were spent on the repairs of 33 buildings.—

	1888-89. Rs.	1887-88. Rs.
Capital expenditure	4,039	2,600
Maintenance	625	899
Total ...	4,664	3,499

62. **Ganges Division.**—The charges for new buildings are as follows :—

	Rs.	a.	p.
Completion—Kunaun rest house, (Total cost, Rs. 1,320-9-6)	100	9	10
Completion—Sanch rest house (Total cost, Rs. 1,723)	190	0	0
Construction—Laldhang rest house	1,580	0	0
Ditto— Hathikund rest house	1,580	0	0

Rupees 95-6-7 were spent in the repair of 10 buildings.—

	1888-89. Rs.	1887-88. Rs.
Capital expenditure	3,451	3,689
Maintenance charges	95	310
Total ...	3,546	3,999

63. **Jhansi Division.**—Rs. 150 were spent on the erection of five quarters for forest guards, and Rs. 106-9-10 on the repair of four buildings.

	1888-89. Rs.	1887-88. Rs.
Capital expenditure	150	*Nil.*
Maintenance	107	13
Total ...	257	13

64. **Lalitpur Division.**—Rs. 349-4-10 (against Rs. 127-13-3 in 1887-88) were spent in the repair and improvement of 27 buildings, including the removal of the Deogarh rest house from a bad to a good site.

There were no capital charges against Rs. 120 in 1887-88.

65. **Banda Division.**—Rs. 60-3-6 (against Rs. 19-4-8 in 1887-88) were spent in the repair of five buildings. There were no capital charges against Rs. 380-8-3 in the previous year.

(*c*)—OTHER WORKS.

66. The expenditure was as follows :—

	1888-89. Rs.	1887-88. Rs.
Wells	400	223
Petty works	70	93
Total ...	470	316

The details by Divisions are :—

	Rs.	a.	p.
Kumaun Division—Rinsali well	300	0	0
Garhwál Division—completion Maldhan well (Total Rs. 299-12-0) ...	99	12	0
Petty works	66	15	6
Jhansi—Cleaning wells	3	2	4

CHAPTER IV.

YIELD AND WORKING.

67. In Appendices A, B and C, a comparative abstract is given of the yield and of the mode and results of working, while the main features of the work of the Circle during the year may be summarized as follows :—

		1888-89.	1887-88.	Increase.	Decrease.
1	Green trees felled ... ... No.	89,359	59,490	29,869	...
2	Yield of above in timber and fuel ... ... c. ft.	1,053,960	803,317	250,643	...
3	Yield of timber including timber from dry trees, c. ft.	1,001,746	825,859	175,887	...
4	Value of above ... ... Rs.	3,08,755	2,76,744	32,011	...
5	Yield of green timber ... ... c. ft.	723,901	579,934	143,967	...
6	Value of above ... ... Rs.	2,19,962	1,95,228	24,734	...
7	Yield of dry timber ... ... c. ft.	277,845	245,925	31,920	...
8	Value of above ... ... Rs.	88,793	81,516	7,277	...
9	Yield of green timber removed by departmental agency. ... ... c. ft.	13,503	15,475	...	1,972
10	Value of above ... ... Rs.	1,169	3,124	...	1,955
11	Yield of green timber removed by exporters ... c. ft.	410,611	350,836	59,775	...
12	Value of above	2,28,420	1,55,394	73,026	...
13	Yield of green timber removed by free grantees and right holders ... ... c. ft.	299,787	213,623	86,164	...
14	Value of above ... ... Rs.	28,784	23,913	4,869	...
15	Yield of dry timber removed by exporters ... c. ft.	261,409	230,600	30,809	...
16	Value of above ... ... Rs.	82,452	78,081	4,371	...
17	Yield of dry timber removed by grantees and right holders ... ... c. ft.	16,436	15,325	1,111	...
18	Value of above ... ... Rs.	5,856	3,435	2,421	...
19	Yield of firewood and charcoal ... ... c. ft.	1,416,761	1,426,631	...	9,870
20	Value of above ... ... Rs.	63,124	51,451	11,673	...
21	Yield of fuel removed by departmental agency c. ft.	279,588	207,992	71,596	...
22	Value of above ... ... Rs.	45,088	35,793	9,295	...
23	Yield of fuel removed by purchasers ... c. ft.	939,609	977,930	...	38,321
24	Value of above ... ... Rs.	16,665	15,658	1,007	...
25	Yield of fuel removed by free grantees and right holders ... ... c. ft.	197,564	112,654	84,910	...
26	Value of above ... ... Rs.	2,540	2,178	362	...
27	Timber sold by departmental agency ... c. ft.	14,699	26,239	...	11,540
28	Receipts from above ... ... Rs.	1,169	3,124	...	1,955
29	Timber sold direct to purchasers ... ... c. ft.	672,020	581,436	90,584	...
30	Receipts from above ... ... Rs.	3,10,872	2,41,775	69,097	...
31	Fuel sold by departmental agency ... ... c. ft.	288,004	209,076	78,928	...
32	Receipts from above ... ... Rs.	45,088	35,793	9,295	...
33	Fuel sold direct to purchasers ... ... c. ft,	939,609	977,930	...	38,321
34	Receipts from above ... ... Rs.	16,665	15,658	1,007	...
35	Bamboos sold ... ... Scores.	795,271	939,788	...	144,517
36	Value of above ... ... Rs.	87,691	93,778	...	6,087
37	Minor produce and grazing (including drift wood ... ... Rs.	73,487	66,198	7,289	...
38	Value of other receipts ... ... Rs.	3,226	9,787	...	6,561
39	Yield (appendix B) per square mile in cubic feet of timber and fuel ... ... c. ft.	1,356	1,264	92	...
40	Value of above per square mile ... ... Rs.	205	183	22	...
41	Gross receipts (Form 58) per square mile ... Rs.	298	256	42	...
42	Net receipts per square mile ... ... Rs.	156	124	32	...

The felling operations of the year compare as follows with those of 1887-88:—

Description of felling and yield in timber and fuel.

	1888-89.		1887-88.		Increase.		Decrease.	
	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.
Jardinage or selection fellings.	67,869	949,079	49,826	769,443	18,043	179,636	...	...
Improvement fellings	208	5,347	238	6,605	...	...	30	1,258
Strip or coppice cuttings.	6,737	5,031	...	...	6,737	5,031*	...	...
Thinnings ..	...	...	2,421	807	...	...	2,421	807
Total fellings for sylvicultural reasons.	74,814	959,457	52,485	776,855	22,329	184,667	...	...
Clearances in boundary lines, fire lines, and roads.	14,545	94,503	7,005	26,462	7,540	68,041	...	...
GRAND TOTAL ...	89,359	1,053,960	59,490	803,317	29,869	250,643	...	...

* 2,000 cubic feet of outturn unexported on 31st March, 1889.

The selection fellings are generally "improvement fellings," but the operations shown specially under the latter head are fellings of large and old unsound trees covering or injuring advance growth, and represent a class of felling we wish to encourage, as in all the most accessible sál forests fire protection has produced a more or less complete advance crop, from among which it is advisable as quickly as possible to remove the scattered unsound trees left as seed-bearers, or groups of unsound trees discarded in earlier fellings. The strip or coppice cuttings were made in Rehar under the recently approved plan of operations. The system under which the yield of timber was removed from the forests compares as follows with the working of the previous year :—

Agency employed in felling and in the export of timber and fuel.

	1888-89.		1887-88.		Increase.		Decrease.	
Government.	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.
Jardinage or selection fellings.	9,995	135,046	9,291	163,136	704	...	...	28,090
Clearances on boundary lines, &c.	1,943	51,238	656	10,066	1,287	41,172	...	...
Total ...	11,938	186,284	9,947	173,202	1,991	13,082	...	...
Purchasers.								
Jardinage or selection fellings.	33,205	513,267	29,015	400,649	4,190	112,618	...	...
Improvement fellings ...	208	5,347	238	6,605	...	...	30	1,258
Strip or coppice cuttings	6,737	5,031	..	...	6,737	5,031	...	...
Thinnings ...	...	...	2,421	807	...	...	2,421	807
Clearances ...	7,097	36,708	3,586	12,396	3,511	24,312	...	...
Total ...	47,247	560,353	35,260	420,457	11,987	139,896	...	...
Right holders and grantees.								
Jardinage or selection fellings.	24,069	300,766	11,520	205,658	13,149	95,108	...	...
Thinnings ...	..	...	...	...	...	...	...	...
Clearances ...	5,505	6,557	2,763	4,000	2,742	2,557	...	...
Total ...	30,174	307,323	14,283	209,658	15,891	97,665	...	...
GRAND TOTAL ...	89,359	1,053,960	59,490	803,317	29,869	250,643	...	...

As noted last year, the number of trees, including as it does poles and mature trees under one head, is information of comparatively little value, and I would advocate the yield being compared in cubic feet only, adding later on the area worked.

In the detailed notes on work in each division I have made no reference to the number of trees cut.

The yield by species compares as follows with that of 1887-88 :—

	1888-89.		1887-88.		Increase.		Decrease.	
	No.	c. ft.	No.	c. ft.	No.	c. ft.	No.	c. ft.
Sál	20,893	261,989	10,116	196,000	10,777	65,989	...	...
Sain	2,106	46,002	1,903	72,972	203	...	...	26,970
Shisham ...	267	2,549	76	6,435	191	...	...	3,886
Tun	32	1,226	52	1,650	...	...	20	424
Haldu	945	37,359	677	30,565	268	6,794	...	...
Chír	14,838	439,144	7,071	312,280	7,767	126,864	...	...
Oak	5,098	168,727	2,989	74,585	2,109	94,142	...	...
Miscellaneous ...	45,180	96,964	36,606	108,830	8,574	...	...	11,866
Total ...	89,359	1,053,960	59,490	803,317	29,889	293,789	20	43,146
				Net increase...	29,869 trees.	250,643	...	...

The demand for timber, particularly for green 1st class sál, has been particularly brisk, and for the first time we have had to check exports in order to adhere to working plans. Save in the case of sleepers there was no warning of this increased demand before the season opened, either in any sudden rise in prices in Meerut, &c., or in increased indents, but there is no doubt that merchants' stocks had been reduced by profitable sales to an unusually low level and that this led to an abnormal demand more remarkable in the returns of the season's working than in those for the official year.

The figures in Appendix J exhibit this special expansion as well as the abstracts above, which show an increase of outturn of 23 per cent. on 1887-88. The increase is chiefly in the Kumaun, Garhwál, and Ganges divisions which supply the general market.

Naini Tal shows a considerable increase in yield, but to a great extent this was caused by movements of troops raising the demand for fuel. It is satisfactory, however, to note the increased sales of building timber, fuel for charcoal, fodder grass, &c., in Naini Tal as well as in other parts of Kumaun and Garhwal.

In Bundelkhand the result of the year's work is generally satisfactory, though the cessation of the special demand for railways has reduced the demand to a normal figure.

The decrease in bamboos is due to the steps taken during the past two years to put the bamboo-producing tracts on a sound footing, and the immediate loss of revenue will be well repaid by the stability which it is believed the measures adopted will introduce into this section of forest work.

68. **Naini Tal Division.**—The yield was obtained as follows :—

	c. ft.		c. ft.
Selection fellings	561,133	increase	166,110
Clearances on fire lines, &c.	68,520	„	51,034
Dry wood	219,570	„	61,221

The yield in timber was extracted as follows :—

	c. ft.		c. ft.
By purchasers	44,150	increase	15,569
By free grants for departmental use	5,960	„	1,999
By rightholders	249,484	„	92,056

The yield in fuel was as follows :—

	c. ft.		c. ft.
By Government agency	269,804	increase	83,718
By purchasers	277,169	„	82,371
By free grants	2,656	„	2,652

Grass and grazing brought in Rs. 2,872, increase Rs. 1,259, and minor produce and other receipts Rs. 3,260, decrease Rs. 654.

The increase under exports by departmental agency is due to an increase in the commissariat demand owing to the increase in the Ránikhet garrison.

The increase in the export of timber by rightholders as compared with the figures in the report for 1887-88 is chiefly due to the cube contents of trees being calculated differently and the factors now used are those given in the working plans.

Under purchasers, to the charcoal demand falling on the Government protected forests instead of on the cantonment and district forests as in part it did last year.

Under grass and grazing, Mr. Braidwood extended the sale of areas for fodder, both in Naini Tal and Ránikhet and obtained good prices.

The decrease under miscellaneous is nominal as last year : this item included grazing and fodder grass.

The yield is the highest yet recorded and realized Rs. 708 per square mile against Rs. 544 in 1887-88.

69. **Kumaun Division.**—The yield from these forests is very steady and was this year as follows :—

	c. ft.		c. ft.
Selection fellings	119,948	decrease	20,656
Clearances on fire lines, &c.	15,205	increase	8,094
Dry wood	408,414	„	73,041

Timber was extracted as follows :—

	c. ft.		c. ft.
By purchasers	183,547	increase	1,010
By free grants (1)	26,257	„	9,438
By right and privilege holders (2)	12,007	decrease	16,821

The fuel exports were as follows :—

	c. ft.		c. ft.
By purchasers	132,756	decrease	13,138
By free grants (3)	188,990	increase	25,368

The bamboo export was—

Scores	54,216	decrease	31,720
Value Rs.	8,011	„	2,622

The grazing revenue was Rs. 7,474 or Rs. 306 increase; other receipts were Rs. 20,440 or an increase of Rs. 4,037. The main items are lime and catechu which compare as follows :—

	Rs.
Lime, 1885-86	2,740
„ 1886-87	8,704
„ 1887-88	6,438
„ 1888-89	6,849

A reduction in lime rates made in Eastern Kumaun has as yet attracted few exporters to the eastern quarries and the chief exports were from Kota.

The catechu workings were as follows :—

i.—Sarra nadi.
ii.—Ladia.
iii.—Kalaunia.
iv.—Dewa in the Nindhaur.
v.—Kholgarh ditto.

The details are as follows :—

		1887-88.	1888-89.	Difference.
Area worked over	acres	168	1,855	+ 1,687
Trees felled	No.	960	5,876	+ 4,916
Girth of trees	average	50″	47″	—3″
Outturn	mds.	109	578	+ 469
Receipts	Rs.	1,117	6,205	+ 5,088
Selling rate per maund	Rs.	9	9	...
Charge for fuel on boiling per handi	annas	0-8-0	0-12-0 0-8-0 and 0-6-0	

During the year the Kumaun and Rohilkhand Railway Company cut 38,220 metre gauge sál sleepers in the Nindhaur, but owing to difficulties about carriage (for which very high rates prevailed) only 13,859 were exported in 1888-89. This delay

---

	c. ft.	Rs.
(1) His Highness the Nawáb of Rampur, sál	6,881	= 5,229
Departmental Works, sál	3,346	= 2,279
Ditto— Miscellaneous	3,277	= 837
Total ...	13,504	= 8,345

The Rampur grant was less by 1,973 cubic feet, and the Executive Engineer, Kumaun Division, drew no timber for local works against 3,696 cubic feet in 1887-88 :—

	c. ft.	Rs.
(2) Villagers, sál green	2,437	= 1,842
Ditto, sál dry	3,221	= 1,921
Ditto, Miscellaneous	6,349	= 639
Tarái Tharus, sál dry	12,753	= 3,766
Total ...	24,760	= 8,168

c. ft. Rs.
against 28,828 = 7,721 in 1887-88, showing great care in the issues.

	c. ft.	Rs.
(3) Tharus of the Tarái	186,070	= 7,068
His Highness the Nawáb of Rampur	2,920	= 114
Total ...	188,990	= 7,182

lowered the total timber exports of the year considerably and the sleeper works as a whole fell into 1889-90.

The demand for haldu and dhauri was brisk, and more could have been sold had not the fellings been of necessity restricted.

The fall off in fuel sold was mainly due to a decrease in fuel exported from river beds, the areas nearest to the market being reserved for a long period for villagers. It is difficult to account for the decrease in bamboos as there are large areas uncut and the rates are the lowest in the Circle.

The total increase in the yield of the division has given a revenue of Rs. 262 per square mile against Rs. 216 in 1887-88.

70. **Garhwal Division.**—The yield of timber and fuel was obtained as follows :—

	c. ft.		c. ft.
Selection fellings	194,728	increase	39,016
Special improvement fellings	5,347	decrease	1,258
Strip or coppice cutting	(1) 5,031	increase	5,031
Clearance of fire lines, &c.	1,330	decrease	35
Dry wood	254,221	increase	43,658

The agency employed for extraction was—

Timber—

	c. ft.		c. ft.
By purchasers	244,537	increase	51,581
Free grants for departmental works	10,715	„	6,049
By privilege and rightholders	(2) 5,116	„	2,165

Fuel—

	c. ft.		c. ft.
By purchasers	200,209	increase	57,455
Free grants departmental works	80	decrease	140

Bamboos—

	Scores.	Value. Rs.		Scores.	Value. Rs.
By purchasers	154,849	15,036	decrease	32,723	3,608
By free grants departmental works ...	200	18	increase	200	18
By privilege and rightholders	665	62	decrease	1,420	148
				Rs.	Rs.
Grazing dues			...	3,044	increase 346
Other receipts			...	9,916	„ 711

The results of the year were Rs. 358 per square mile against Rs. 299 in 1887-88, while it should be noted that Rs. 8,423 for produce removed from Garhwál was collected and credited by the Kumaun and Ganges divisions.

To some extent, owing to the sleeper works in Kumaun monopolising the principal forest in that division, to the exclusion of ordinary purchasers, also to the reduction in fellings on the Ganges, but mainly owing to the popularity of the works in the Garhwál division and the depletion of stocks in Meerut and elsewhere, the demand this year has been larger than in any previous year, and every kind of timber sold freely ; so that the regulated annual yield of the forest, besides balances from previous years, was sold in full. The new plan of operations for Rehar was started and $\frac{2}{6}$ths of the area assigned for the year worked over, giving an additional yield of 7,099 cubic feet = Rs. 3,972. Mr. Wilmot had many difficulties to encounter in the novelty of the work, the large amount of material thrown on the market, combinations to reduce prices, &c., so that the progress made is satisfactory. In the South Patli Dún the special improvement fellings of unsound superfluous trees were continued, and the area worked over was equal to that of last year ; the difficulty of extension lies in the limited demand for the small scantlings which form the main part of the outturn.

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(1) Two thousand and sixty-eight cubic feet, part of the outturn of these cuttings, were exported after the 31st March, 1889.

	1888-89.	1887-88.
(2) Green sál	1,857	719
Dry sál	56	376
Miscellaneous	3,203	1,85

71. **Ganges Division**—The yield in timber and fuel is grouped as follows :—

	c. ft.		c. ft.
Selection fellings	28,305	decrease	13,273
Clearances on fire lines, &c.	9,518	increase	9,518
Dry wood	379,599	decrease	257,716

Removals were as below: —

Timber—

	c. ft.		c. ft.
By purchasers	171,658	increase	20,018
By free grants departmental works	2,715	decrease	9,868
By rightholders	695	increase	589

Fuel—

	c. ft.		c. ft.
By purchasers	242,354	decrease	144,150

Bamboos—

	Scores.	Rs.		Scores.		Rs.
By purchasers	5,38,244	61,106	decrease	81,915	increase	21
By rightholders	3,680	331	„	262	„	24
		Rs.				Rs.
Grazing		3,044			decrease	1,249
Other receipts		5,539			increase	763

The forests of the Ganges division contain the poorest stock in the sub-Himalayan tracts, and during the past year restrictions on felling trees and cutting bamboos have been extended, so that the working of the forests having yielded Rs. 357 per square mile against Rs. 344 in 1887-88 is very satisfactory, and reflects great credit on Mr. Brereton's management.

Mr. Broun's plan for working the bamboo tracts in Gori and Udepur was introduced, and, although it involved the closure of over $\frac{1}{8}$th the area, the provision for selling the monopoly of cutting in the open areas brought in Rs. 4,600, and, as will be seen above, although the number cut was reduced by $\frac{1}{8}$th, the receipts exceeded those of the previous year.

The reduction in grazing dues is owing to the exclusion of Gújar cattle, a most necessary step, and one which has fully repaid the immediate loss in revenue.

72. **Jhansi Division**—The outturn of timber and fuel was obtained by selection fellings and the yield 16,665 cubic feet, increase 8,704 cubic feet, was removed as follows :—

Timber—

	c. ft.		c. ft.
By Government agency	3,582	increase	1,149
By purchasers	1,317	„	635
By rightholders	288	„	198

Fuel—

	c. ft.		c. ft.
By Government agency	2,624	„	538
By purchasers	8,776	„	6,066
By rightholders	78	„	78

Bamboos—

	Scores.	Rs.		Scores.	Rs.
By Government agency	1,629	677	increase	802	284
By purchasers	450	160	„	372	138
		Rs.			Rs.
Grass reserves		4,228		decrease	586
Grazing		432		„	104
Other receipts		1,093		increase	356

The increase in sales of all products (save grass), anticipated last year by the Deputy Commissioner, has been realized, and with the introduction of special improvement fellings in the closed and fire-protected forest and a regular cutting of bamboos the yield should rise rapidly.

The apparent decrease in grass is owing to the fact that the 1887-88 receipts included outstandings (Rs. 425) from the previous year, and that of the 1888-89 receipts Rs. 330 was paid after the year closed.

73. **Lalitpur Division.**—The yield of timber and fuel was obtained by selection fellings and amounted to 37,450 cubic feet, decrease 16,973 cubic feet. The agency employed for extraction was as follows :—

Timber—

	c. ft.		c. ft.
By Government agency	2,412	decrease	4,771
By purchasers	2,732	„	1,462
By free grants	1,887	increase	871
By rightholders	1,099	„	609

Fuel—

	c. ft.		c. ft.
By Government	7,160	decrease	12,660
By purchasers	16,400	„	1,880
By free grants	4,760	increase	1,520
By rightholders	1,000	„	800

Bamboos were exported—

	Scores	Rs.		Scores.		Rs.
By Government agency ...	20,358	=2,749	decrease	9,585		=1,093
By purchasers	5,431	= 656	„	657	increase	= 101
By free grants	1,850	= 7	increase	1,350	„	= 7
By rightholders	425	= 2	„	425	„	= 2

	Rs.		
Grass and grazing brought in	2,612	increase	3
Other receipts	2,025	decrease	265

The working of the year brought in Rs. 64 per square mile opposed to Rs. 80 in 1887-88.

The general decrease is attributed to the completion of the Midland Railway which was opened at the close of the year. The Lalitpur forests supply the wants of the sadr and tahsíli towns where depôts are maintained, while there are considerable exports to Jhánsi (the town dues returns showed 1,038 score of bamboos imported in December-January, 1888-89) and limited exports to Saugor.

It is to increased facilities in the towns and to exports to other districts now opened up by the railway that we must look for enhanced revenue, as the zamíndári waste lands will for many years supply village wants.

74. **Banda Division.**—The selection fellings for timber and fuel yielded 93,523 cubic feet, increase 4,703 cubic feet, and the outturn was removed as follows :—

Timber—

	c. ft.		c. ft.
By Government agency	7,509	increase	1,650
By purchasers	24,069	„	3,193

Fuel—

	c, ft.		c. ft.
By purchasers	61,945	decrease	140

Bamboos were exported—

	Scores.	Rs.		Scores.	Rs.
By Government agency ...	3,898	=488	increase	2,702	=299
By purchasers	2,805	=388	„	1,063	= 36

	Rs.		Rs.
Grass and grazing ...	1,056	increase	139
Other receipts were ...	2,233	„	380

The working of the year resulted in the receipt of Rs. 46 per square mile opposed to Rs. 48 in 1887-88, the decrease occurring in the reduced prices obtained for timber and bamboos owing to competition by zamíndári forests.

The Bánda forests are not in a satisfactory position either legally or as to the system of management. The question of the reservation of the Government areas under the Forest Act and their future administration is now before Government, and I hope a scheme may soon be sanctioned which will ensure both method and continuity in the working of these forests. The exceptional system by which Bánda forest questions are not dealt with directly in the Forest Branch, but are first the subject of consideration by the Board of Revenue, is also open to objection, as causing some delay with no commensurate gain : and I understand this will shortly be the subject of a communication from the Board to Government.

75. With regard to produce removed by free grantees and rightholders, I have followed the same plan as last year, *viz.*, to show only the produce actually brought to account in the Code forms and exclude all estimated values of minor produce, grazing, &c.

In appendix I the actual and estimated figures of this section of the yield of the forests are given.

The totals for the circle compare as follows :—

	1888-89.		1887-88.	
	Quantity.	Value.	Quantity.	Value.
	c. ft.	Rs.	c. ft.	Rs.
i. Timber	314,336	46,926	228,938	39,189
ii. Fuel	1,371,362	14,847	1,363,504	14,594
iii. Grass and grazing	...	30,570	...	30,570
iv. Minor produce	5,000	16,436	5,000	16,366
Total ...	1,690,698	1,08,779	1,597,442	1,00,719

CHAPTER V.

FINANCIAL RESULTS.

76. Forms Nos. 57 to 62 afford information in detail on this subject.

77. The main financial features of the past four years compare as follows :—

	1885-86.	1886-87.	1887-88.	1888-89.
	Rs.	Rs.	Rs.	Rs.
Receipts	4,43,133	5,78,023	4,60,450	5,32,833
Expenditure	2,64,479	2,77,117	2,37,543	2,54,400
Surplus	1,78,654	3,00,906	2,22,907	2,78,433
Percentage of expenditure to receipts	59·98	47·97	51·59	47·74

The revenue is the highest received since departmental timber operations were curtailed, and the percentage of receipts spent in maintaining the forests and collecting the revenue is the lowest yet recorded. As noted in previous years forest progress is best shown by comparisons of the results in terms of years rather than by comparisons based on a period of only two official years, and the following figures, I think, support this view :—

	Average annual receipts and charge 1877-78 to 1880-81.	Average annual receipts and charges, 1881-82 to 1884-85.	Average annual receipts and charges, 1885-86 to 1888-89.
	Rs.	Rs.	Rs.
Receipts	4,03,434	4,84,014	5,02,888
Expenditure	2,25,221	2,79,836	2,58,385
Surplus	1,78,213	2,04,178	2,45,225
Percentage of expenditure to receipts ...	55·82	57·81	48·70

The revised estimate of the year was—

	Rs.		Rs.
Receipts	5,02,000	actuals more by	30,833
Expenditure	2,59,000	do. less by	4,600
Surplus	2,43,000	do. more by	35,433
Percentage of expenditure on receipts ...	51·59	do. less by	3·85

The increase in receipts has been explained in paragraph 67 on the yield of the year, where it is noted that the brisk demand for timber, &c., was not foretold by any exceptional circumstances early in the year. The short disbursement of charges is not considerable in amount and was distributed over all heads of expenditure.

The uncontrolable variations in revenue during the last few weeks of the official year when heavy rain or exceptionally dry weather may throw out all calculations was dwelt on last year, and I give the receipts during the first three months of each year for the past seven years to show how 1888-89 contrasts with other years, Appendix J.

78. The receipts and charges in each division for the past and previous years compare as follows :—

Division.	Receipts.		Differences.		Charges.		Differences.	
	1888-89.	1887-88.	More.	Less.	1888-89.	1887-88.	More.	Less.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Direction ...	1	...	1	...	26,068	19,564	6,504	...
Naini Tal ...	66,546	51,155	15,391	...	44,070	38,084	5,986	...
Kumaun ...	1,40,144	1,15,470	24,674	...	59,505	56,730	2,775	...
Garhwál ...	1,79,231	1,49,393	29,838	...	67,342	68,292	...	950
Ganges ...	1,24,660	1,20,029	4,631	...	41,687	40,313	1,374	...
Jhánsi ...	7,489	7,236	253	...	4,362	3,105	1,257	...
Lalitpur ...	9,328	11,546	...	2,218	7,409	7,088	321	...
Bánda ...	5,434	5,621	...	187	3,957	4,367	...	410
Total ...	5,32,833	4,60,450	74,788	2,405	2,54,400	2,37,543	18,217	1,360

Net increase in receipts Rs. 72,383, in charges Rs. 16,857.

79. The receipts, charges and surplus in each division are as follows :—

Division.	Receipts.	Charges.	Surplus.	Deficit.	Percentage of charges on receipts.		
					1888-89.	1887-88.	1886-87.
	Rs.	Rs.	Rs.	Rs.			
Direction	1	26,068	...	26,067	...	...	...
Naini Tal	66,546	44,070	22,476	...	66·2	73·9	68·3
Kumaun	1,40,144	59,505	80,639	...	42·5	49·1	42·4
Garhwál	1,79,231	67,342	1,11,889	...	37·6	45·7	45·6
Ganges	1,24,660	41,687	82,973	...	33·4	33·6	30·9
Jhansi	7,489	4,362	3,127	...	58·2	42·7	37·1
Lalitpur	9,328	7,409	1,919	...	79·4	63·3	51·3
Bánda	5,434	3,957	1,477	...	72·8	77·7	59·4
Total ...	5,32,833	2,54,400	3,04,500	26,067	47·74	51·58	47·97

So that, save in Bundelkhand, where the revenue has for some years been affected by railway works and has on their completion fallen off, all divisions contributed to the good results of the year.

80. Arranged under main heads, the receipts and charges of the year compare as follows with those of 1887-88:—

	Receipts.					Charges.				
	Amount.		Difference in 1888-89.		Budget heads.	Amount.		Difference in 1888-89.		Budget heads.
	1888-89.	1887-88.	Increase.	Decrease.		1888-89.	1887-88.	Increase.	Decrease.	
	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.	
I.—Departmental operations.	50,668	43,748	6,920	...	I.	31,489	37,295	...	5,806	Debits varied to suit each division, *vide* form No. 62.
II.—Other heads of revenue.	4,82,165	4,16,702	65,463	...	II. to V.	1,09,687	99,278	10,409	...	
III.—Formation, protection and improvement of forests.	...	...	...	...	...	1,13,224	1,00,970	12,254	...	
Total ...	5,32,833	4,60,450	72,383	...	...	2,54,400	2,37,543	22,663	5,806	

The increase in departmental operations is in Naini Tal under the head fuel for the Commissariat Department. The charges under this head have apparently fallen during the year owing to the payment of Rs. 8,108 in 1887-88 for work done in the previous year, the charges for the year under review are, however, really Rs. 2,500 in excess of 1887-88 charges.

The increase in receipts on produce removed by purchasers, &c., calls for no remark; the increase in charges is of course due to the gradual transfer of debits for roads, establishment, &c., from I. to II. as departmental operations are curtailed.

The charges for the formation and improvement of the forests are distributed as follows :—

Division.	Amount.		Difference in 1888-89.	
	1888-89.	1887-88.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
Naini Tal	12,085	9,690	2,395	...
Kumaun	32,338	25,490	6,848	...
Garhwál	40,177	39,969	208	...
Ganges	20,903	19,393	1,510	...
Jhánsi	2,572	1,752	820	...
Lalitpur	3,157	2,464	693	...
Bánda	1,992	2,212	...	220
			12,474	220
			—220	
Total ...	1,13,224	1,00,970	12,254	Increase.

As will have been gleaned from previous chapters, the year has been a busy one as regards reservation and demarcation of forests, the extension of fire-conservancy, opening up roads and providing shelter for controlling and the subordinate staff; so that the expenditure under these heads shows a substantial and satisfactory increase.

In Naini Tal the increased expenditure is on buildings, demarcation, and fire conservancy. In Kumaun there have been increased disbursements on roads and buildings. In Garhwál the charges on roads and buildings have risen, while the payments for fire-conservancy have been reduced. In the Ganges the grants for roads, demarcation and fire-conservancy have been raised, while the buildings have cost less than in 1887-88. In Jhánsi building and demarcation works have received special attention. In Lalitpur the enhancement is under buildings and compensation for land acquired. In Bánda no new buildings have been erected but the charges for demarcation are higher than they were last year.

81. The receipts and charges of the year by budget main heads compare as follows with 1887-88 :—

Receipts.

Year.	I. Timber and other produce removed from the forests by Government agency.	II. Timber and other produce removed from the forests by purchasers.	III. Confiscated drift and waif wood.	IV. Revenue from forests not managed by Government.	V. Miscellaneous receipts.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1888-89	50,668	4,77,563	1,376	...	3,226	5,32,833
1887-88	43,748	4,05,682	1,233	...	9,787	4,60,450
Difference 1888-89 ... More ...	6,920	71,881	143	...	...	72,383
Difference 1888-89 ... Less ...	...	...	...	...	6,561	...

EXPENDITURE.

A.—Conservancy and Works.

Year.	I. Timber and other produce removed from forests by Government agency.	II. Timber and other produce removed from forests by consumers or purchasers.	III. Confiscated drift and waif wood.	IV. Revenue from forests not managed by Government agency.	V. Rent of leased forests and payments to share-holders.	VI. Live stock, stores, tools and plant.	VII. Communications and buildings.	VIII. Demarcation, improvement, and extension of forests.	IX. Miscellaneous.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1888-89	22,803	23,758	...	...	610	10,859	52,149	26,071	2,208	1,38,458
1887-88	27,735	23,002	..	...	994	9,391	44,361	23,029	846	1,29,358
Difference 1888-89. More ...	...	756	...	...	...	1,468	7,788	3,042	1,362	9,100
Difference 1888-89. Less ...	4,932	...	...	...	384	...	...	...	...	...

B.—Establishments.

Year.	I. Salaries.	II. Travelling allowances.	III. Contingencies.	Total.
	Rs.	Rs.	Rs.	Rs.
1888-89	97,885	12,767	5,290	1,15,942
1887-88	91,747	11,675	4,763	1,08,185
Difference 1888-89 ... More.	6,138	1,092	527	7,757
... Less.	...	...	...	...

The explanation of the variations shewn above may be recapitulated as follows :—

Receipts.—

R.i. Due to increased sales of fuel to the Commissariat Department in Naini Tal.

R.ii. and iii. To enhanced collections in nearly every division.

R.v. The decrease is due to the 1887-88 accounts including a special payment of Rs. 6,000 for an elephant license and to the transfer of some credits for minor produce from Vc. to II.e.

Expenditure.—

A.i. decrease is due to the stoppage of timber works in Kumaun, final payments for which were made in 1887-88.

A.ii. and v. Export by purchasers and shared forests in Bánda call for no special note.

A.vi. Live and other stock: the increase is due to the rise in the cost of food for bullocks and elephants.

A.vii. Roads and buildings: the increase is due to extended works in nearly every Division.

A.viii. Demarcation and improvement of forests: the increase is due to special demarcation work in Naini Tal, Kumaun, Ganges and Jhánsi, and for increased charges for fire-conservancy in Kumaun and the Ganges.

B.i. Salaries:—Mr. Greig's furlough pay in India was for some months debited to the Circle and for four months Mr. Bryant was on special duty.

B.ii. and iii. Travelling and contingent charges increased owing to Mr. Bryant's deputation.

82. The value of timber and other produce and of stock as shown in form 57 stood as follows :—

	Rs.
Value 1st April, 1888	1,14,009
„ 31st March, 1889	1,33,408
Balance in favour of the year	19,399

The value of timber, fuel, &c., in stock in Bundelkhand is Rs. 2,189 or Rs. 31 less than last year; there is no stock of this kind in other divisions. The value of live stock is nearly unchanged, and the value of buildings, tools and plant has increased by Rs. 19,342 against an increase of Rs. 7,501 in 1887-88.

The outstandings due to the department were Rs. 9,584 or Rs. 1,962 less than at the close of 1887-88. The balance of uncollected revenue was Rs. 1,248-3-9 or Rs. 5,662-15-9 less than last year.

The value of the year's transactions stands as follows :—

		Rs.
Cash surplus		2,78,433
Add increase in value of stock		19,399
Add outstandings due to department		9,584
	Total ...	3,07,416
Deduct difference between revenue uncollected due at the beginning and end of year		5,663
Cash value transactions	1888-89 ...	3,01,753
„ „ „	1887-88 ...	2,39,298
„ „ „	1886-87 ...	3,00,371
„ „ „	1885-86 ...	1,79,647
Average of four years	... ...	2,55,267

CHAPTER VI.

GENERAL REMARKS.

83. Instructions have been received to include in this report an account of what has been done in connection with portable tramways for the extraction of forest produce, and the following notes give the required information :—

Schemes suggested—

i.—Chorgalia (Eastern Kumaun forests) to Lalkua, Rohilkhand and Kumaun Railway, 15 miles, an estimate of cost of Rs. 1,60,000 was framed for above, but the exports present and anticipated do not seem to justify the construction of the line.

ii.—Ramnagar (Western Kumaun forests) to Moradabad, distance 46 miles: here again the cost of construction and maintenance appears prohibitive. A scheme for a branch of the Rohilkhand and Kumaun Railway, Lalkua to Ramnagar, has lately been mooted and data as to exports, country, military and forest, are being collected. It seems likely a light fair weather line would pay.

iii.—Patli Dún (Garhwál) to Nagina on the Oudh and Rohilkhand Railway, miles 30. The cost of construction and maintenance would be higher than the carriage of estimated exports would pay interest on.

iv.—Kotdwara to Najibabad, Oudh and Rohilkhand Railway. The suggested route for this line is a capital one, the bridging would be light and as a rule the line follows a watershed.

The forests of Kohtri and Udepur (Ganges Division) which it would serve are not at present rich, and they alone would not make the line pay, but if the garrison of the new Kaludanda cantonment is increased as the climate, physical features of the place, and its position in connection with the railway seem to render likely, there is little doubt a light tramway capable of carrying military stores, country and forest produce, would pay and largely enhance the value of the new station and the adjacent forests.

84. The management of the bamboo forests seems to call for a few special remarks. The questions of whether the bamboos were overcut and how to regulate the cutting with a minimum of inconvenience to bamboo exporters have been the subject of attention since 1880, and various measures devised to check overcutting and increase the receipts from sales have been described in previous reports. During the past two years various modifications of these measures have been introduced, which it seems useful to detail.

In the Kumaun and Garhwál Bhábar the chief bamboo forests are found between the Ganges and the Kosi, both on the outer slopes of the hills and in the valleys. East of the Kosi the Nindhaur and Kalaunia valleys only are very rich in bamboos, but bamboos are also found to a limited extent in the outer hills near Kota, Kaladhungi and east of the Nindhaur.

The facilities for export the Ganges and Ramganga rivers afford increase the value of the western bamboo tracts, and it is in these forests that great care has to be taken to prevent overcutting. The schemes introduced are as follows :—

Ganges Division—

Gori series of bamboo tracts.—The Gori forests have been divided by Mr. Broun into six blocks, of which at present two, and after the first rotation of six years three, blocks will be open annually, subject to the reservation of the shoots of the year.

Chandi Series.—The Chandi hill forest has been divided by Mr. Brereton into three bloeks, one of which is closed in rotation and two are open annually, subject to the reservation of the shoots of the year.

The Chandi plain forest seeded in 1886-87 and is entirely closed to cutting.

Udepur Series.—These have been divided by Mr. Broun into two series.—

i.—Laldhang,
ii.—Mawakot,

which are again divided into four bloeks each.

Two blocks in each series are open annually, subject to the reservation of the shoots of the year.

In Udepur, Gori and Chandi the facilities of carriage, &c., make the bamboos of special value as compared with those further west, and enhanced dues are levied at the revenue depôts. Up to 1887-88, the monopoly of cutting in the open blocks west of the Koh was sold by tender, and in 1888-89 auction was substituted for tender, with good results as to rates obtained. The purchaser of the monopoly pays the normal depôt rate on export in addition to the lump sum he paid by tender or at auction, so that there is a distinct check on overcutting. In 1887-88 the monopoly from Lachhman Jhula to Chandi sold for Rs. 1,200; in 1888-89, from Lachhman Jhula to the Koh for Rs. 4,600.

Kotri and Sona nadi ranges.—The bamboo tracts in the above ranges are annually worked, subject to the reservation of the shoots of the year. Two overcut blocks in the outer range have been closed for two years. It is proposed to draw up a scheme for the outer range for closure on a three-year rotation, shoots of the year reserved, and to work the inner hills as at present.

Garhwal Division.—The forests have been divided by Mr. Bryant into nine series of three blocks each, one of the blocks in each series is closed to cutting annually, and two are left open, subject to the shoots of the year being reserved. Mr. Wilmot has proposed one block being closed for two and one for three years, to test the comparative value of each system in Garhwál as well as in the Ganges division. In addition to the above closures the area open to rights (including bamboos for roofing) on the outer hills, which are particularly liable to overcutting, have been closed for two years to exporters, and will certainly be kept closed for a third year.

Kumaun Division.—Here overcutting is exceptional and the demand for bamboos is not brisk, large areas in the upper forests being entirely untouched.

Throughout the division the shoot of the year is being reserved, and where hitherto untouched areas are cut over, at least half the standing stems are reserved. As soon as feasible, a block system will be drawn up for Kumaun, probably on the lines sketched out for Kotri and the Sona nadi.

General.—There is no doubt that, owing to the reduction in area in Kumaun and Garhwál under mature bamboos, consequent on the seeding in 1878-80, the demand was in later years in excess of the supply, and that it was necessary to regulate the cutting more rigidly than in the past. In Appendix K a return of the yield and financial results of the bamboo cuttings in these district, is given.

In the Bundelkhand divisions of Jhánsi, Lalitpur and Bánda there are very valuable bamboo forests. These are worked either departmentally or by purchasers, the cutting being done by employés of the Forest Department, the charges being borne by the purchaser, or by purchasers under passes, who cut under strict supervision. As a rule, the clumps are in good order, overcutting is exceptional and it suffices to limit cuttings to about six stems per clump, the shoots of the current and previous year being reserved.

The bamboo sales of the past four years in these divisions compare as follows:—

Division.	1885-86.			1886-87.			1887-88.			1888-89.			Average of four years.		
	Scores of bamboos sold.	Price realized.	Average rate per 100 sold.	Scores of bamboos sold.	Price realized.	Average rate per 100 score.	Scores of bamboos sold.	Price realized.	Average rate per 100, score.	Scores of bamboos sold.	Price realized.	Average rate per 100 score.	Scores of bamboos sold.	Price realized.	Average rate per 100 score.
	No.	Rs.	Rs.	No.	Rs.	Rs.	No.	Rs.	Rs.	No.	Rs.	Rs.	No.	Rs.	Rs.
Jhánsi ...	1,090	275	25·2	1,960	638	32·5	905	415	45·8	2,079	837	40·2	1,508	541	35·9
Lalitpur,	42,150	4,212	9·9	40,308	4,881	12·1	36,031	4,397	12·2	27,564	3,414	12·3	36,513	4,226	11·5
Bánda ...	2,115	376	17·8	3,555	711	20·0	2,938	541	18·4	6,703	876	13·1	3,828	626	16·3
Total ...	45,355	4,863	10·7	45,823	6,230	13·6	39,874	5,353	13·4	36,346	5,127	14·1	41,849	5,393	12·8

85. The past year has been one of many changes in the personnel of the department. Mr. Greig, who for over twenty years has taken such a leading share in the forest administration of these provinces, has, to the deep regret of all who knew him, been compelled by ill-health to sever his connection with the forest service. Colonel Campbell and Mr. Braidwood, who have worked during so many years, and with such marked success in the Kumaun forests, have proceeded on long leave, and Mr. Broun, whose services were specially acknowledged last year, has left us for Ceylon.

The excellent services rendered by all Divisional Officers have, it is hoped, been made clear in the early pages of this report, and their work must strongly commend them to the notice of Government.

Colonel Campbell highly eulogises the services rendered by Mr Blanchfield, and specially notes his energetic and thorough supervision of the road and building works.

To Mr. D. Sheils my warm acknowledgments are due for the high state of efficiency in which he keeps the Direction office, making it an example for the other offices of the Circle.

C. BAGSHAWE,

Conservator of Forests, Central Circle,
N. W. Provinces and Oudh.

APPENDICES

AND

ANNUAL STATEMENTS.

FOREST DEPARTMENT, N.-W PROVINCES AND OUDH, CENTRAL CIRCLE.

STATEMENT OF TREES FELLED DURING THE YEAR 1888-89.

Description of trees.	Jardinage or Selection fellings.								Thinnings.								Clearances on boundary lines, fire lines and roads not shown in Form No. 53.								Grand Total.	
	By Government agency.		By contractors.		By rightholders and grantees.		Total.		By Government agency.		By contractors.		By rightholders and grantees.		Total.		By Government agency.		By contractors.		By rightholders and grantees.		Total.			
	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No	C. ft.	No.	C. ft.	No.	C. ft.
Sál ...	...	...	11,755	2,19,239	6,409	28,317	18,164	2,47,556	...	...	...	...	...	...	...	...	..	...	2,622	14,273	107	160	2,729	14,433	20,893	2,61,989
Sain ...	...	...	1,837	45,617	260	360	2,097	45,977	...	...	...	...	...	...	...	...	...	...	9	25	...	...	9	25	2,106	46,002
hiSsam ...	...	...	134	2,216	11	165	145	2,381	...	...	...	...	...	...	...	...	...	...	...	75	122	93	122	168	267	2,549
Tún ...	...	...	22	709	8	380	30	1,089	...	...	...	...	...	...	...	...	...	...	...	25	2	112	2	137	32	1,226
Haldu ...	...	...	883	33,678	61	2,190	944	35,868	...	...	...	...	...	...	...	...	...	...	1	1,491	...	...	1	1,491	945	37,359
Chír ...	4,647	97,940	1,139	45,064	6,326	2,45,068	12,112	3,88,072	...	...	...	...	...	...	...	...	1,793	47,962	933	3,110	...	...	2,726	51,072	14,838	4,39,144
Oak ...	717	21,049	2,319	1,31,553	400	3,864	3,436	1,56,466	...	...	...	...	...	...	...	...	68	2,249	1,594	10,012	...	...	1,662	12,261	5,098	1,68,727
Miscellaneous ...	4,631	16,057	22,061	45,569	11,194	20,422	37,886	82,048	...	...	...	...	...	...	...	...	82	1,027	1,938	7,697	5,274	6,192	7,294	14,916	45,180	96,964
Total, 1888-89	9,995	1,35,046	40,150	5,23,645	24,669	3,00,766	74,814	9,59,457	...	...	...	...	...	...	...	...	1,943	51,238	7,097	36,708	5,505	6,557	14,545	94,503	89,359	10,53,960
1887-88	9,291	1,63,136	29,253	4,07,254	11,520	2,05,658	50,064	7,76,048	...	...	2,421	807	...	...	2,421	807	656	10,066	3,586	12,396	2,763	4,000	7,005	26,462	59,490	8,03,317
Difference More	704	...	10,897	1,16,391	13,149	95,108	24,750	1,83,409	..	...	...	...	...	...	...	...	1,287	41,172	3,511	24,312	2,742	2,557	7,540	68,041	29,869	2,50,643
Less	...	28,090	...	...	...	...	...	...	...	...	2,421	807	...	...	2,421	807	...	...	...	...	...	...	...	...	...	...

More ... ... 32,290 trees = 2,79,540 C. feet.

Less ... ... 2,421 „ = 28,897 „

Net Increase ... ... 29,869 „ = 2,50,643 „

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

Appendix B.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

YIELD IN PRODUCE.

Description of produce.	1887-88.		1888-89.			
	Quantity.	Value.	Quantity.	Value.	Increase.	Decrease.
		Rs.		Rs.	Rs.	Rs.
1. Timber from green trees felled, c. ft.,	579,934	1,95,228	(*a.*) 7,23,901	2,19,962	24,734	...
2. Ditto From dry trees, ,, ...	245,925	61,516	2,77,845	88,308	6,792	...
	8,25,859		(*b.*) 10,01,746			
3. Firewood and charcoal, ,, ...	14,26,631	51,451	14,16,761	63,125	11,674	...
4. Bamboos, including Ringals, scores,	9,39,788	93,778	7,95,271	87,691	...	6,087
5. Minor produce including driftwood Rs.	...	38,442	...	42,497	4,055	...
6. Grazing dues Rs. ...	...	27,756	...	30,990	3,234	...
Total ...	...	4,88,171	...	5,32,573	50,489	6,087
				Net Increase.	44,402	

C. ft.

(*a*) Total outturn of timber from trees felled as per Appendix A. ... 10,53,960
Ditto ditto as per this Appendix (B). ... 7,23,901

Difference ... 3,30,059

The difference is included under firewood and charcoal made from fellings of the year in the Naini Tal Division.

(*b.*) Total outturn of timber as per Form No. 54 ... ...

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

STATEMENT SHOWING DISPOSAL OF PRODUCE COLLECTED BY GOVERNMENT AGENCY, FOR 1888-89, COMPARED WITH RESULTS FOR 1887-88.

Description of produce.	Sold locally, i.e., not brought to Depôt.				Depôt transactions.															
	1887-88.		1888-89.		Balance in hand at commencement of year.				Brought to Depôt.				Total receipts in Depôt.				Removed by purchasers from Depôt.			
					1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Timber ... c. ft.	10,313	821	5,976	455	14,840	2,477	8,750	655	10,423	492	8,299	689	24,763	2,969	17,049	1,344	15,920	2,303	8,723	714
Firewood ... Mds.	7,845	367	7,618	199	480	75	177	31	79,914	35,145	101,728	44,886	80,400	35,220	101,905	44,917	80,000	35,171	101,482	44,840
Charcoal ... ,,	500	200	...	...	194	106	105	56	32	13	64	43	226	119	169	99	104	55	77	49
Bamboos ... Nos.	232,543	1,380	259,649	1,575	114,355	1,093	200,702	1,448	491,588	3,460	334,089	2,510	605,943	4,493	534,791	3,958	404,941	3,043	312,009	2,339
Grass ... Bdls.	22,600	18	30,646	15	...	...	...	...	...	...	1,000	1	...	...	1,000	1	...	...	1,000	1
Minor produce ... Nos.	16,215	96	68,842	191	30,001	276	4,245	30	37,960	317	55,543	281	67,961	593	59,788	311	63,442	560	56,562	290
Total ...	...	2,882	...	2,435	...	3,967	...	2,220	...	39,427	...	48,410	...	43,394	...	50,630	...	41,132	...	48,233

Description of produce.	Depôt transactions—(*concluded*).												Remarks.
	Converted in Depôt.				Lost or written off as useless.				Used by Department.				Total issued from Depôt.				Balance in hand at close of year.				
	1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.		
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.	
Timber ... c. ft.	...	...	...	...	...	...	143	8	87	11	529	200	16,013	2,314	9,395	917	8,750	655	7,654	427	
Firewood ... Mds.	...	...	...	...	127	18	...	...	...	...	...	...	80,223	35,189	101,482	44,840	177	31	423	77	
Charcoal ... ,,	...	...	...	...	17	8	...	...	...	...	...	...	121	63	77	49	105	56	92	50	
Bamboos ... Nos.	...	...	...	...	...	...	412	1	300	2	46	...	405,241	3,045	312,467	2,340	200,702	1,448	222,324	1,618	
Grass ... Bdls.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,000	1	...	...	...	...	
Minor produce ... Nos.	...	...	...	...	266	3	...	...	8	...	505	4	63,716	563	57,067	294	4,245	30	2,721	17	
Total ...	...	...	...	...	...	29	...	4	...	13	...	204	...	41,174	...	48,441	...	2,220	...	2,189	

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

APPENDIX D.

UNEXECUTED WORK DETAILED IN PLANS OF OPERATIONS FOR 1888-89.

Naini Tal Division.—

Roads and paths.

5′ path Borgaon to Churta made in part.

5′ path Hinnan to Ninglat.

3′ path Kaligadh to (Ránikhet) Nursery.

2′ path Agaspur to Ayatana gadh.

5′ Bellekh-Bujan path.

Deferred for want of funds.

Buildings.

Re-erection Hinnan out-houses burnt in fire of 1888.

Proposals abandoned.

Nursery quarters Ránikhet.

Deferred for want of funds.

Kumaun Division.

Roads.

Jalaban-Haldua cart road deferred for lack of time.

Improvement to Nandhaur road near Bhalsani, cost Rs. 1,500.

Abandoned on reconsideration as not worth the money.

Buildings.

Temporary inspection huts at Kaladeo and Airadeo deferred owing to lack of labour and time.

Forester's house and Revenue Depôt, South of Jaunla Sál deferred as above.

Sample plots.—Plans showing of trees deferred for lack of time.

Rough schemes for catechu works.

Deferred for lack of time.

Dulagadh Thinnings.—Deferred, no demand for poles.

Improvement fellings, Jaunla Sál.

Deferred, no demand.

Garhwál Division.

Road work.

Bridges, Patrampur-Maldhan road.

Deferred for lack of funds.

Buildings.

Alter Kalagarh rest-house.

Deferred as above.

Sain fellings, Haldgadi.

Deferred, other sources meeting demand.

Ringing useless sál south Patli Dún.

Abandoned from danger of fire.

Ganges Division.

Fire-conservancy.

Fire-conservancy extension in Andher-Majhera block omitted by oversight.

Kunaun fire path improvement not done, ground being too bad.

Roads.

Kotdwara-Saneh road realignment.

Land obtained. Construction deferred to 1889.

Buildings.

Udepur Range quarters, Mawakot.

Deferred for want of time.

Improvement fellings. Dabina (Kohtri Range).

Abandoned on reconsideration.

Jhánsi Division.

Demarcation.

Numbering pillars not completed but is in hand.

Lalitpur Division.

The cutting of timber and bamboos was below the estimate as the demand was less.

Bánda Division,

Roads.

Manikpur Bedhuk and Jilia Seli roads not repaired because not required.

Lime quarry working.

All worked save Nihi (No. 2).

C. BAGSHAWE,

Conservator, Central Circle.

NAINI TAL;
The 30th July, 1889.

APPENDIX E.

Detailed account of fires that occurred in fire-protected forests in 1889.

I. Naini Tal Division, 17 fires to 16 in 1888.

HINNAN RANGE.

i. Naini Tal Working Circle compartment 23, January 6th, 1889, acres 24, cowherds smoking, were convicted and sentenced to two months' imprisonment.

ii. Naini Tal Working Circle, compartment 13, April 20th, 1889, acres 20. Burnt in line burning.

iii. Gagar Forest, 29th April, 1889, acres 500; caused by travellers, evidence insufficient for conviction.

iv. Gagar, 5th June, 1889, acres 8; cause unknown.

CHINA RANGE.

v. Belwakhán, 10th May, 1889, acres 196, supposed to have been lighted by a Gurkha out shooting; evidence insufficient.

vi. Budla Kot, 12th May, 1889, acres 960, caused by a forest guard taking insufficient precaution when firing back against a fire in the open forest, fined one month's pay.

vii. Amaltani, 8th May, 1889, acres 80; came in from unprotected forest.

viii. Tit, 10th May, 1889, acres 228; came in from outer forests.

ix. Papri, 14th May, 1889, acres 23; came in from outer forests.

RÁNIKHET RANGE.

x. Reserve Ránikhet.

Kaligadh compartment 9, 4th April, 1889, acres 26. Lighted by soldiers smoking *en route* to bathing place.

xi. Padholi, compartments 7 and 13, 4th June, 1889, acres 9, fired in four places; cause unknown.

xii. Padholi, comparments 1 and 2, June 7th, acres 14. Lighted in two places, cause unknown.

xiii. Chilianau, compartments 7, 8 and 9, 2nd June, 1889; caused by travellers on Dwara road; not caught.

xiv. Chilianau, compartment 8, June 9th, acres 12; caused by travellers; not caught.

xv. Ganiadeoli, compartment 3, May 12th, acres 7: crossed from cantonment Forest.

xvi. Ganiadeoli, compartment 3, May 30th. Probably lighted by soldiers smoking.

xvii. Machor, 4th May, acres 48; cause unknown.

Mr. Bryant commends his subordinates for hard work carried out successfully and for the zeal shown in connection with fire-protection, and specially notices Babu Búdhi Ballabh, Ranger, Ránikhet.

Considering the intricate boundaries and the position of the Naini Tál forests, the constant traffic passing through them, the primitive character of most of the lines, and the combustible nature of chír forests, the success attained is most commendable.

2. Kumaun Division.

Nandhaur forest, 19th April, 181 acres, spread from a stump left smouldering when the outer lines were being burnt.

The expenditure was distributed as follows :—

Name of forest tracts.	Area attempted in acres.	Expenditure on			Total.	Expenditure per acre.	Failures in acres.
		Interior lines.	Outer lines.	Pay of watchers.			
		Rs.	Rs.	Rs.		Rs. a. p.	
Nandhaur	24,679	130	335	895	1,360	0 0 10	181
Jaunla sál	7,592	229	356	306	891	0 1 10	*Nil.*
Horai	2,790	98	18	226	342	0 1 11	„
Lakhunan mandi ...	1,049	...	...	53	53	0 0 9	„
Deolia gádh... ...	5,301	39	578	535	1,152	0 3 5	„
Sarra valley ...	2,995	...	142	...	142	0 0 9	„
Salani	408	...	26	90	116	0 4 7	„
Chausala	2,391	...	...	49	49	0 0 4	„
Kailkhur	4,104	...	14	104	118	0 0 5	„
Total ...	51,304	496	1,469	2,258	4,223	0 1 3$\frac{1}{5}$	181

Salani the most expensive forest is a detached block.

Horai is also a detached block and the rate cannot be lowered.

The rate in the Naudhaur, Jaunla sál and Deolia gadh will be reduced when the intermediate forests are protected, the extension which affects some 30,000 acres will be begun in 1890.

Colonel Campbell and Mr. Hobart-Hampden commend their subordinates, and the arrangements in Kumaun were all that could be wished for.

3. Garhwal Division.

There were no fires in the protected forests. The expenditure was distributed as follows :—

Name of block.	Area attempted in acres.	Expenditure on—				Total.	Expenditure per acre excluding capital expenditure and also expenditure for 1887-88.	Failures.
		Capital expenditure including new fire lines.	Recurring expenditure on fire lines.	Fire watchers.	Miscellaneous.			
		Rs, a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Palain including—								
Shisham Khata ...	26,159	584 12 3	792 11 11	238 12 3	2 5 8	1,618 1$\frac{0}{8}$ 1	0 0 8	*Nil.*
North Patli Dún...	45,692	181 12 0	1,454 12 6	636 9 0	45 6 11	2,318 $\frac{1}{5}$ 5	0 0 8	„
South Patli Dún...	24,588	301 12 0	1,656 14 4	492 12 0	24 10 11	2 476 $\frac{1}{3}$ 3	0 1 4	„
Chilkia ...	50,622	0 0 0	1,107 11 6	741 11 10	74 3 11	1,923 1$\frac{1}{3}$ 3	0 0 6	„
Kota ...	36,178	29 13 7	618 12 0	481 1 2	16 4 11	1,145 15 8	0 0 5	„
Garhibulchand ...	8,906	97 14 4	439 15 9	138 14 0	27 10 10	704 6 11	0 1 0	„
Rehar ...	11,531	0 0 0	859 0 0	186 0 11	31 2 10	1,076 3 9	0 1 5	„
Total ...	203,766	1,196 0 2	6,929 14 0	2,915 13 2	221 14 0	11,263 9 4	0 0 10$\frac{1}{2}$	

Mr. Eardley-Wilmot acknowleges in warm terms the good services rendered by his Range Officers, but it should be specially noted that the success attained is mainly due to Mr. Eardley-Wilmot's untiring attention to his fire-conservancy, a work specially heavy this year, as it is the first season in which Garhwál (with 318 square miles under conservancy, its extensive system of fire lines and of patrolling, and with export going on up to June) has been without a European officer, as Assistant to the Divisional Officer.

4. Ganges Division.

No fires occurred.

The following is the expenditure distributed in detail :—

Name of forest block.	Area in acres.	Width of fire lines.	Length.		Cost of line cutting.	Fire watchers.	Miscellaneous or non-recurring charges.	Burning of fire lines.	Total cost.	Cost per acre.
			Miles.	Chains.						
		Feet.			Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Pies.
Gori including Kunaon, Kauria, Andher Majhera, Jogichaur, Hazara.	22,878	8 to 12 feet.	63	72	348 11 3	467 13 11	30 8 10	45 12 0	892 14 0	7·49
Udepur including Sukrao and Gwalgarh.	4,567	8 to 12 feet.	8	77	48 11 3	88 8 0	11 12 11	9 8 0	158 3 2	6·65
Dabina and South Kotri.	13,638	12 to 50 feet.	47	23	565 10 0	196 10 2	11 12 10	33 10 0	807 11 0	11·37
North Sona nadi	12,920	8 to 18 feet.	21	37	285 8 3	108 1 9	5 14 5	8 2 0	407 10 5	6·05
Total ...	54,003	...	141	49	1,248 8 9	861 1 10	30 1 0	96 11 0	2,266 6 7	8·05

Great credit is due to Mr. Brereton for the successful extension of fire-conservancy over 35 square miles of forest at a very moderate cost, and for sketching out the system of permanent lines and paths for next season in the newly-protected forests.

Mr. B. B. Osmaston, Assistant Conservator, was deputed to assist Mr. Brereton in his fire-conservancy during the last three weeks of the season, and throughout the trying part of the season he was indefatigable in inspection, &c.

5. In Jhánsi the excellent arrangements made by Mr. Hardy, the Deputy Commissioner, again resulted in complete success; the charges are, as usual, very small in amount. A scheme for regular fire lines in the most important forests is under consideration and will, it is hoped, be carried out in 1890.

6. In Lalitpur Mr. Sturt, the Officiating Deputy Commissioner, has only had two small fires of two and three acres each. In three forests, Deogarh, Kachnauda and Sairwans, there are regular lines, and the forest is being surrounded by a dry masonry wall which keeps out cattle and acts as a bar to fire. The charges are only 100 rupees and are the lowest in the Circle. Mr. Sturt proposes some extensions of fire-conservancy, which have hitherto been delayed by the bad arrangements hitherto made for protecting the Saugor Forests (Central Provinces) which march with the unprotected areas in Lalitpur.

C. BAGSHAWE,

The 30th July, 1889. *Conservator of Forests, Central Circle.*

Appendix F.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

AREAS CLOSED TO GRAZING IN THE CENTRAL CIRCLE, 1888-89.

Division	Total area.		Area closed to grazing or only grazed over by exporters' cattle.		Percentage of area of division closed.
	Acres.	Square miles.	Acres.	Square miles.	
Naini Tal ... Naini Tal sub-division	34,985	54	147	8	8·51
Naini Tal ... Ranikhet sub-division	26,039	40	5,158		
Total	61,024	94	5,305		
Kumaun	342,406	535	51,304	80	14·95
Garhwál	319,763	500	203,766	318	63·60
Ganges	223,117	349	54,003	84	24·06
Jhánsi	23,911	38	2,040	3	7·89
Lal	92,225	144	2,004	3	2·08
Bánda	75,454	118	*Nil.*	...	...
Total	1,137,900	1,778	318,422	496	27·89

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

ABSTRACT RECORD OF THE GROWTH OF SÁL IN SPECIMEN PLOTS IN THE KUMAUN SUB-HIMÁLAYAN FORESTS.

Year.	Kumaun Forest Division, Plots and year of first observation.								Garhwál Forest Division, plots and year of first observation.								Ganges Forest Division, plots and year of first observation.			
	Lachman Mandi, 1884-85.		Sunmun Thapla, 1884-85.		North Khonani, 1884-85.		Salani, 1887-88.		Amtanola, 1884-85.		Raninagal, 1887-88.		Dhikala, 1887-88.		Domunda, 1887-88.		Andher Majhera, 1888-89.		Chaukhamb, 1888-89.	
	Thinned area.	Unthinned area.	Thinned area.	Unthinned area.	Thinned area.	Unthinned area.	Thinned area.	Unthinned area.	Thinned area.	Unthinned area.	Thinned area.	Unthinned area.	Thinned area.	Unthinned area.	Thinned area.	Unthinned area.	Thinned area.	Unthinned area.	Thinned area.	Unthinned area.
	Acres and number of trees. 2—114	Acres and number of trees. ½—71	Acres and number of trees. 2—117	Acres and number of trees. ½—71	Acres and number of trees. ...	Acres and number of trees. 1—90	Acres and number of trees. ...	Acres and number of trees. 1—63	Acres and number of trees. 2—113	Acres and number of trees. ½—66	Acres and number of trees. 2—127	Acres and number of trees. ½—54	Acres and number of trees. 2—169	Acres and number of trees. ½—122	Acres and number of trees. 2—158	Acres and number of trees. ½—142	Acres and number of trees 2—194	Acres and number of trees. ½—96	Acres and number of trees. 2—244	Acres and number of trees. ½—100
	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.	Increase inches.
1884-85 ...	·83	·42	·61	·34	...	...	...	...	·78	·37	...	...	...	...	...	...	The sites were chosen only last year. The first measurement of girths was taken in March, 1889, so the record of increased girth will begin from next year.			
1885-86 ...	1·08	·45	·71	·41	...	...	...	...	·98	35	...	...	...	...	...	...				
1886-87 ...	·68	·28	·43	·28	...	...	...	...	·54	·38	...	...	...	...	...	...				
1887-88 ...	·91	·61	·84	·61	...	·47	...	·24	·9	·20	·90	·40	·80	·50	·60	·50				
1888-89 ...	·85	·67	·81	·35	...	*·05	...	*·02	1·03	·67	1·15	·72	1·33	·52	·90	·50				
Average increase in the various plots per tree.	·87	·49	68	·40	...	...	...	...	·84	·39	1·02	·56	1·06	·51	·75	·50				

* Decrease.

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

APPENDIX H.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

LIST OF BUILDINGS AND WELLS MAINTAINED FOR FOREST OFFICERS CORRECTED UP TO 31ST MARCH, 1889.

Division and description of building.	For controlling officers.	For subordinates excluding Revenue Depôts.	Offices, stores, and Revenue Depôts.	Total buildings.	Wells.	Remarks.
Direction Division.						
Permanent	...	...	1	1	...	
Total ...	...	...	1	1	...	
Naini Tal Division.						
Permanent	3	9	5	17	...	
Semi-permanent	3	...	...	3	...	
Temporary	...	1	...	1	...	
Total ...	6	10	5	21	...	
Kumaun Division.						
Permanent	7	11	16	34	3	
Total ...	7	11	16	34	3	
Garhwál Division.						
Permanent	13	12	19	44	3	
Temporary	...	...	...	...	1	
Total ...	13	12	19	44	4	
Ganges Division.						
Permanent	8	...	5	13	2	
Semi-permanent	...	...	1	1	...	
Temporary	...	...	...	...	1	
Total ...	8	...	6	14	3	
Jhánsi Division.						
Permanent	1	...	...	1	1	
Semi-permanent	1	5	3	9	...	
Total ...	2	5	3	10	1	
Lalitpur Division.						
Semi-permanent	2	24	1	27	...	
Total ...	2	24	1	27	...	
Bánda Division.						
Permanent	...	2	...	2	...	
Semi-permanent	1	...	2	3	...	
Total ...	1	2	2	5	...	
	...	...	...	...	...	
GRAND TOTAL ...	39	64	53	156	11	

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

PRODUCE REMOVED BY FREE GRANTEES AND RIGHT-HOLDERS.

Name of grantee.	Description of produce.	Naini Tal Division.		Kumaun Division.		Garhwál Division.		Ganges Division.		Jhánsi Division.		Lalitpur Division.		Banda Division.		Total of each class of produce.	
		Amount.	Value.	Amount.	Value.	Amount.	Value.	Amount.	Value.	Amount.	Value.	Amount.	Value.	Amount.	Value	Amount.	Value.
		C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.	C. ft.	Rs.
Rightholders.	I.—Timber	2,49,484	23,664	24,760	8,168	5,116	2,000	695	472	288	72	1,099	264	...	...	2,81,442	34,640
	II.—Firewood	17,250	719	8,35.666	8,500	3,78,855	3,946	1,28,055	1,334	...	...	1,000	6	...	...	13,61,026	14,505
	III.—Minor forest produce, such as bamboos, bark, fruit and lime stone.	...	271	..	10,000	...	5,000	...	797	...	78	...	2	...	...	...	16,148
	IV.—Grass, grazing and leaf fodder,	...	6,462	...	11,000	...	10,000	...	3,108	...	...	...	...	...	...	...	30,570
	V.—Branches, leaves, and vegetable mould for manure.	...	81	...	...	...	...	...	...	...	...	...	...	...	...	...	81
	Total ...	2,66,734	31,197	8,60,426	37,668	3,83,971	20,946	1,28,750	5,711	288	150	2,099	272	...	...	16,42,468	95,944
Concessions by grant of Local Government.	I.—Timber	...	...	6,881	5,229	...	...	...	...	...	...	...	...	...	...	6,881	5,229
	II.—Firewood	...	...	2,920	114	...	...	...	...	...	...	...	...	...	...	2,920	114
	III.—Minor forest produce, such as bamboos, bark, fruit and lime stone.	...	...	5,000	200	...	...	...	...	...	...	...	...	...	...	5,000	200
	IV.—Grass, grazing, and leaf fodder,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	V.—Branches, leaves, and vegetable mould for manure.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	...	...	14,801	5,543	...	...	...	...	...	...	...	...	...	...	14,801	5,543
Free grants under executive orders.	I.—Timber	5,960	350	6,623	3,116	10,715	2,678	2,715	678	...	...	1,887	235	...	..	26,013	7,057
	II.—Firewood	2,656	80	...	...	...	...	...	...	...	...	4,760	148	...	...	7,416	228
	III.—Minor forest produce, such as bamboos bark, fruit and lime stone	...	...	...	...	...	...	...	...	...	...	..	7	...	...	...	7
	IV.—Grass, grazing, and leaf fodder,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	V.—Branches, leaves, and vegetable mould for manure.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	8,616	430	6,623	3,116	10,715	2,678	2.715	678	...	...	6,647	390	...	...	33,429	7,292
	Grand Total ...	2,75,350	31,627	8,81,850	46,327	3,94,686	23,624	1,31,465	6,389	288	150	8,746	662	...	...	16,90,698	1,08,779

ABSTRACT FOR THE CIRCLE.

Description of produce.	To right-holders.		Under concessions granted by Local Government.		By free grants under executive orders.		Total of each kind of produce.	
	Amount.	Value.	Amount.	Value.	A ount.	Value.	Amount.	Value.
	c. ft.	Rs.	c. ft.	Rs.	c. ft.	Rs.	c. ft.	Rs.
I.—Timber	2,81,442	34,640	6,881	5,229	26,013	7,057	3,14,336	46,926
II.—Firewood	13,61,026	14,505	2,920	114	7,416	228	13,71,362	14847
III.—Minor forest produce such as bamboos, bark, fruit and limestone	...	16,148	5,000	200	...	7	5,000	16,355
IV.—Grass, grazing and leaf fodder	...	30,570	...	...	...	...	...	30,570
V.—Branches, leaves and vegetable mould for manure	...	81	...	...	...	...	...	81
Grand Total ...	16,42,468	95,944	14,801	5,543	33,429	7,292	16,90,698	1,08,779

Naini Tal;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

Appendix J.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

STATEMENT SHOWING REVENUE FOR APRIL, MAY AND TO 15TH JUNE OF KUMAUN, GARHWAL AND GANGES DIVISIONS FROM 1883-84 TO 1889-90.

Divisions.	Years.	Revenue.					Remarks.
		Timber.	Fuel.	Grazing.	Miscellaneous.	Total.	
		Rs.	Rs.	Rs.	Rs.	Rs.	
Kumaun	1883-84	22,439	1,160	478	8,773	32,852	
Garhwál	1883-84	42,210	242	175	10,743	53,370	
Ganges	1883-84	8,920	696	381	29,458	39,454	
Total ...	...	73,569	2,100	1,034	48,974	1,25,676	
Kumaun	1884-85	45,767	1,112	120	6,596	53,595	
Garhwál	1884-85	33,046	448	111	8,755	42,360	
Ganges	1884-85	4,618	365	416	24,012	29,412	
Total ...	...	83,431	1,925	647	39,363	1,25,367	
Kumaun	1885-86	27,158	671	197	3,007	31,034	
Garhwál	1885-86	28,709	442	130	9,352	38,633	
Ganges	1885-86	19,924	892	1,081	16,016	37,903	
Total ...	...	75,791	2,005	1,408	28,375	1,07,570	
Kumaun	1886-87	34,608	910	243	7,093	42,854	
Garhwál	1886-87	46,035	636	127	14,272	61,070	
Ganges	1886-87	27,040	908	749	47,821	70,519	
Total ...	...	1,07,683	2,454	1,119	63,186	1 74,443	
Kumaun	1887-88	18,950	1,197	122	6,771	27,040	
Garhwál	1887-88	29,770	606	75	9,376	39,827	
Ganges	1887-88	28,192	1,023	487	37,999	67,701	
Total ...	...	76,912	2,826	684	54,146	1,34,568	
Kumaun	1888-89	21,748	1,702	313	7,269	31,032	
Garhwál	1888-89	39,628	775	165	9,847	50,415	
Ganges	1888-89	24,203	921	789	42,717	68,630	
Total ...	...	85,579	3,398	1,267	59,833	1,50,077	
Kumaun	1889-90	38,299	1,445	565	14,270	54,579	
Garhwal	1889-90	79,836	473	690	9,961	90,960	
Ganges	1889-90	33,944	1,026	544	33,105	68,619	
Total ...	...	1,52,079	2,944	1,799	57,836	2,14,158	

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

STATEMENT SHOWING YIELD OF BAMBOOS FOR THE SEVEN YEARS 1882-83 to 1888-89.

Division.	1882-83.		1883-84.		1884-85.		1885-86.		1886-87.		1887-88.		1888-89.		Total.	
	Scores.	Value.	Scores.	Value.	Scores.	Value.	Scores.	Value.	Scores.	Value.	Scores.	Value.	Scores.	Value.	Scores.	Value.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Kumaun	1,11,663	9,480	2,12,949	15,244	193,543	17,520	94,099	8,872	102,740	9,490	85,936	8,081	60,869	5,988	861,799	74,675
Garhwál	3,50,188	23,859	3,75,432	27,252	202,832	17,197	232,148	22,225	255,866	25,173	185,487	18,396	155,714	15,116	1,757,667	1,49,218
Ganges	4,79,253	35,572	4,71,465	36,862	374,165	28,399	419,903	40,306	654,286	61,550	620,159	61,085	541,924	61,437	3,561,155	3,25,211
Jhánsi	367	73	458	96	1,004	232	1,090	275	1,960	638	905	415	2,079	837	7,863	2,566
Lalitpur	71,874	5,501	56,937	4,448	39,606	3,459	42,150	4,212	40,308	4,881	36,031	4,397	27,564	3,414	314,470	30,312
Bánda	1,607	247	1,640	373	1,804	462	2,115	376	3,555	711	2,938	541	6,703	876	20,362	3,586
Total ...	1,014,952	74,732	1,118,881	84,275	812,954	67,269	791,505	76,266	1,058,715	1,02,443	931,456	92,915	794,853	87,668	65,23,316	5,85,568
Average rate per 100 score ...	Rs. 7·32		Rs. 7·39		Rs. 8·09		Rs. 9·02		Rs. 9·67		Rs. 9·97		Rs. 11·03		Rs. 8·97	

Export for two working seasons 1887-88 and 1888-89 under partial closure systems.

	1887-88.			1888-89.		
	Scores.	Amount. Rs.	Average rate. Rs.	Scores.	Amount. Rs.	Average rate. Rs.
Kumaun	75,163	7,936	10·55	55,754	5,481	9·83
Garhwál	1,90,472	18,699	9·82	1,39,316	13,410	9·62
Ganges	6,11,809	66,354	10·84	4,46,276	51,202	11·47
Total ...	8,77,444	92,989	10·59	6,41,346	70,093	10·92

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

Form No. 49.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

AREA OF RESERVED FORESTS, 1888-89.

Division or range.	Civil district or territory.	Name of forest.	Area on 1st April, 1888.		Added during the year.	Excluded or transferred to other heads.	Area on 31st March, 1889.		Number and date of notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
Naini Tal. — China	Kumaun	Khurpa Tal (proposed reserve, late Iron Company's grant.	22,400	35	..	3,410	(a)14,849	23		(a.) The Superintendent, Forest Surveys, having surveyed the forests, the correct area has been ascertained to be 18,259 acres only, including 3,410 acres village lands now excluded.
Naini Tal. — Ranikhet	Ditto	Block No. XI.—Ranikhet	(b)4,480	7	...	...	4,480	7		(b) Area subject to correction.
		Total	26,880	42	...	3,410	19,329	30		
Kumaun. — Nihal	Kumaun	Proposed blocks. I.—Dabka; II.—Dechauri; III.—Fatehpur	62,080	97	...	...	62,080	97		
Kumaun. — Chaubhainsi	Ditto	Block No. IV.—Chakhata	65,606	103	...	...	65,606	103		
		„ V.—Horai	8,960	14	...	...	8,960	14		
		„ VI.—Chaubhainsi	147,520	230	...	...	147,520	230		
Kumaun. — Talla Des	Ditto	„ VII.—Jaunla Sál	43,520	68	...	...	43,520	68		Areas subject to correction.
		„ VIII.—Kalonia	4,320	7	...	...	4,320	7		
		„ IX.—Chini	4,640	7	...	...	4,640	7		
		„ X.—Sarda Islands	5,440	8	...	...	5,440	8		
		„ XI.—Chandni	320	1	...	...	320	1		
		Total	342,406	535	...	...	342,406	535		
Garhwál. — Patli Dún	Garhwál	Block No. I.—Palain	24,640	38	...	...	24,640	38		
		„ II.—Patli Dún	152,000	238	...	...	152,000	238		
		„ III.—Kartia	800	1	...	...	800	1		
Garhwál. — Chilkia Kotah	Kumaun	„ IV.—Chilkia	80,467	126	...	...	80,467	126		Ditto.
		„ V.—Kotah	35,200	55	...	...	35,200	55		
Garhwál. — Dhara	Bijnor	„ VI.—Garhibulchand	10,937	17	...	...	10,937	17		
		„ VII.—Behar	15,719	25	...	...	15,719	25		
		Total	319,763	500	...	...	319,763	500		

Gangos.	Kohtri Dún ...	Gárhwal ...	Block No, I Kohtri Dún,	Kohtri Dún,	58,240	91	...	...	58,240	91		
	Sona nadi ...			Sona nadi ...	32,640	51	...	...	32,640	51		
	Udepur ...		Ditto II Udepur ...	...	34,240	54	...	...	34,240	54	(a) G. O. No. $\frac{133F.}{730-37}$, dated 16th February, 1889.	The areas are subject to correction.
	Gori ...	Bijnor ...	Ditto III Gori ...	Gori ...	56,320	88	...	...	56,320	88	(b) G. O. No. $\frac{419F.}{731-14}$, dated 20th July, 1888.	
				Chandi ..	41,739	65	(a) (b) 266	(c) 328	41,677	65	(c) G. O. No. $\frac{621F.}{730-25}$, dated 1st October, 1888.	
			Total ...		223,179	349	266	328	223,117	349		
Jhánsi.	Jhánsi ...	Jhánsi ...	Jhánsí		10,553	17	...	(a) 10	10,543	17	(a) G. O. No. $\frac{211F.}{899-12}$, dated 7th March, 1889.	
			Mau		6,035	9	...	(a) 24	6,011	9	...	Areas subject to correction.
			Garotha		5,127	8	...	...	5,127	8		
			Moth		2,230	4	...	...	2,230	4		
			Total ...		23,945	38	...	34	23,911	38		
Lalitpur.	Lalitpur ...	Lalitpur ...	Lalitpur		190	...	*100	...	290	...	* G. O. No. $\frac{252F}{862-10}$, dated 29th March, 1889.	
			Bansi		4,667	7	...	...	4,667	7		
			Talbehat		9,290	15	...	...	9,290	15		
			Bala Behat		30,173	47	...	...	30,173	47	...	Ditto ditto,
			Banpur		4,745	7	...	...	4,745	7		
			Mahroni		1,283	2	...	...	1,283	2		
			Maraura		39,415	62	...	...	39,415	62		
			Total ...		89,763	140	100	...	89,863	140		
			GRAND TOTAL ...		1,025,936	1,604	366	3,772	1,018,389	1,592		

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

Form No. 49.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

AREA OF PROTECTED FORESTS 1888-89.

Division or range.	Civil district or territory.	Name of forest.	Area on 1st April, 1888. Acres.	Area on 1st April, 1888. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 31st March, 1889. Acres.	Area on 31st March, 1889. Equivalent in square miles.	Number and date of notification of addition or transfer.	Remarks.
Naini Tal division. — Naini Tal sub-division. — China ...	Kumaun ...	China								Due to the exclusion of 156 acres from the gross area of forest on account of revision of area on calculation by Forest Survey and the deduction of 2,611 acres of village lands formerly included in area being within the forest boundary.
Hinnan ...	Ditto ...	Budlákot								
		Nalená								
		Bhawali	22,903	36	...	2,767	20,136	31		
		Jákh								
		Lariákántá								
		Kuria								
		Total ...	22,903	36	...	2,767	20,136	31		
Naini Tal division. — Ranikhet sub-division. — Siuni ...	Kumaun ...	Block I.—Machor	211	...	...	...	211	...		Areas subject to correction.
		„ II.—Bhatronj	5,760	9	...	...	5,760	9		
		„ III.—Siuni	4,480	7	...	...	4,480	7		
		„ IV.—Siun	640	1	...	...	640	1		
		„ V.—Bellekh	640	1	...	...	640	1		
Ranikhet ...	Ditto ...	„ VI.—Kathallekh ...	1,920	3	...	...	1,920	3		
		„ VII.—Guniadeoli	1,280	2	...	...	1,280	2		
		„ VIII.—Karchuli	203	...	...	...	203	...		
		„ IX.—Chillianao	640	1	...	...	640	1		
		„ X.—Chaubattia	1,280	2	...	...	1,280	2		
		„ XII.—Padholi	640	1	...	...	640	1		
		„ XIII.—Dwárson	1,920	3	...	...	1,920	3		
		„ XIV.—Deolikhet	25	...	...	...	25	...		
		„ XV.—Siahi Devi	1,920	3	...	...	1,920	3		
		Total ...	21,559	33	...	...	21,559	33		
		Total Naini Tal Division ...	44,462	69	...	2,767	41,695	64		
Lalitpur division. — Lalitpur ...	Lalitpur ...	Lalitpur	65	...	...	*65	...	...	*By Government Notification No. 252F./862-10, dated 29th March, 1889, these 65 acres have been constituted reserved forest.	
		Talbehat	2,362	4	...	...	2,362	4		
		Total Lalitpur Division ...	2,427	4	...	65	2,362	4		
		Total ...	46,889	73	...	2,832	44,057	68		

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

Form No. 49.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

AREA OF BÁNDA FORESTS 1888-89—(UNCLASSED STATE FORESTS).

Division or range.	Civil district or territory.	Name of forest.	Area on 1st April, 1888.		Added during the year.	Excluded or transferred to other heads.	Area on 31st March, 1889.		Number and date of notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
		I.—Ranipur-Kalianpur								
Bánda	Bánda district,	1. Man	385·53	...	...	...	385·53	...		
		2. Unchadih	413·88	...	...	...	413·88	...		
		3. Sakrawan	644·80	...	...	...	644·80	...		
		4. Ranipur-Kalianpur	2,697·84	...	...	...	2,697·84	...		
		5. Mamaniya or Katauta ...	2,250·24	...	...	...	2,250·24	...		
		6. Gadurha	221·66	...	...	...	221·66	...		
		7. Uldan	714·02	...	...	...	714·02	...		
		8. Rajuhan	4,618·80	...	...	...	4,618·80	...		
		9. Deori	4,273·31	...	...	...	4,273·31	...		
		*10. Nihi	2,109·61	...	...	...	2,109·61	...		
		*11. Maholi	948·76	...	...	...	948·76	...		
		*12. Kalianpur...	2,670·66	...	...	...	2,670·66	...		
		Total ...	21,949·11	34	...	...	21,949·11	34		
		II.—Chauri-Donda.								
Ditto	Ditto ...	*13. Karauhan...	728·43	...	...	...	728·43	...		
		*14. Sikapur-Chitghati	69·43	...	...	...	69·43	...		
		15. Jaro or Jaro muafi	1,139·94	...	...	...	1,139·94	...		
		16. Chauri	4,036·70	...	...	...	4,036·70	...		
		*17. Chulha	751·19	...	...	...	751·19	...		
		17. (a) Chulha	751·19	...	...	...	751·19	...		
		18. Parasin or Kulmar-Purasin ...	3,623·30	...	...	...	3,623·30	...		
		19. Donda	5,416·14	...	...	...	5,416·14	...		
		Total ...	16,516·32	26	...	...	16,516·32	26		
		III.—Manikpur.								
Ditto	Ditto ...	20. Chulhi	1,621·92	...	...	...	1,621·92	...		
		*21. Mahal Balkishn of Chulhi village...	26·25	...	...	...	26·25	...		
		*22. Ditto Mukhraingir of ditto ...	13·00	...	...	...	13·00	...		
		23. Ambha	2,242·77	...	...	...	2,242·77	...		
		24. Karkapadri or Pandria ...	730·93	...	...	...	730·93	...		
		25. Chheria Kalan	1,237·83	...	...	...	1,237·83	...		
		26. Amchor Narwa	4,216·66	...	...	...	4,216·66	...		
		27. Rukhma Khurd	132·62	...	...	...	132·62	...		
		28. Area out side Forest line ...	716·00	...	...	...	716·00	...		
		Total ...	10,937·98	17	...	...	10,937·98	17		

Form No. 49.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

AREA OF BÁNDA FORESTS 1888-89—(UNCLASSED STATE FORESTS).

Division or range.	Civil district or territory.	Name of forest.	Area on 1st April, 1888.		Added during the year.	Excluded on transferred to other heads.	Area on 31st March, 1889.		Number and date of notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
		IV.—Tikaria.								
Bánda ...	Bánda district,	29. Bhenda or Bhera	777·96	...	...	...	777·96	...		
		*30. Dadri muafi	4,697·00	...	...	...	4,697·00	...		
		*31. Tikaria Jamanhai	2,892·39	...	...	...	2,892·39	...		
		*32. Gusarai	908·43	...	...	...	908·43	...		
		*33. Rukma Buzurg	1,978·21	...	...	...	1,978·21	...		
		*34. Marian Panwari or Mandayan Panwari.	1,885·68	...	...	...	1,885·68	...		
		Total ...	13,139·67	21	...	...	13,139·67	21		
		V.—Matdar.								
Ditto ...	Ditto ...	35. Matdar	6,729·10	10	...	...	6,729·10	10		
		Total ...	6,729·10	10	...	...	6,729·10	10		
		VI.—Koluwa.								
Ditto ...	Ditto ...	36. Koluwa	6,182·00	10	...	...	6,182·00	10		
		Total ...	6,182·00	10	...	...	6,182·00	10		
		GRAND TOTAL ...	75,454·18	118	...	...	75,454·18	118		

*Village areas administered under the $\frac{55}{45}$ arrangement

	Acres.
Total area Government villages	55,775·14
Ditto $\frac{55}{45}$ villages	19,679·18
Total area	75,454·18 = 118 square miles.

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

Form No. 50.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

PROSECUTIONS FOR BREACHES OF FOREST RULES DURING 1888-89.

Forest division and civil district.	Cases pending from 1887-88.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
						I.—Prosecutions in Courts of Law.								
						By Divisional Officer.								
Naini Tal division,														
Kumaun district—														
Naini Tal sub-division	...	9	4	...	5	18	18	13	34	5	46	18	80	...
Ranikhet sub-division ...	...	3	1	2	...	6	6	4	11	2	2	6	13	...
Total ...	...	12	5	2	5	24	24	17	45	7	48	24	93	...
Kumaun division.														
						By Magistrate of Bhábar.								
Kumaun district	...	1	1	...	...	2	2	2	2	...	...	2	2	...
Garhwál division.														
						By Magistrate of Bhábar.								
Kumaun district	1	...	...	...	...	...	1	1	1	...	1	1	2	...
	...	...	...	...		By Senior Assistant Commissioner, Kumaun.								
					1	1	1	...	...	...	...	...	...	This case involving 13 persons is pending.
Total ...	1	...	...	...	1	1	2	1	1	...	1	1	2	
Ganges division.														
						By Senior Assistant Commissioner, Garhwál.								
Garhwál district	1	...	...	...	1	1	2	1	2	1	1	2	3	...
Jhánsi division.														
Jhánsi district	...	...	...	...	1	1	1	...	...	1	1	1	1	...
Lalitpur division														
Lalitpur district	...	...	5	...	...	5	5	3	8	2	4	5	12	...
Bánda division.														
Bánda district	...	...	12	...	...	12	12	12	58	...	...	12	58	...
Total I ...	2	13	23	2	8	46	48	36	116	11	55	47	171	1

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

PROSECUTIONS FOR BREACHES OF FOREST RULES DURING 1888-89—(*concluded*).

Forest division and civil district.	Case pending from 1887-88.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Naini Tal division.														
II.—Cases compounded under section 67 of the Forest Act.														
Kumaun district—														
Naini Tal sub-division	...	...	178	1	55	234	234	234	266	...	...	234	266	...
Ranikhet sub-division ...	...	4	72	8	54	138	138	138	321	...	...	138	321	...
Total ...	...	4	250	9	109	372	372	372	587	...	...	372	587	...
Kumaun division.														
Kumaun district	16	2	5	...	63	70	86	86	107	...	...	86	107	...
Garhwál division.														
Kumaun district	...	...	44	...	2	46	46	46	76	...	...	46	76	...
Ganges division.														
Garhwál district	...	...	29	3	35	67	67	67	101	...	...	67	101	...
Jhánsi division.														
Jhánsi district	...	...	1	...	...	1	1	1	1	...	...	1	1	...
Total II ...	16	6	329	12	209	556	572	572	872	...	...	572	872	...
GRAND TOTAL, I AND II ..	18	19	352	14	217	602	620	608	988	11	55	619	1,043	1

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

AREA OF FOREST TRACTS PROTECTED FROM FIRE DURING THE DRY SEASON OF 1889, TO ACCOMPANY REPORT FOR 1888-89.

Division.	Forest tracts.	Year in which protection commenced.	Area actually protected up to 30th June, 1888.	During dry season of 1889.			Cost during the season.	Remarks.
				Area attempted to be protected.	Failures.	Actually protected.		
	I.—Areas under Special Protection.							
Naini Tal sub-division.	Block I.—Naini Tal protected forest	1876	18,139	20,136	1,200	18,936	262	
	Naini Tal reserve	1886	22,283	14,849	558	14,291	130	
	Total ...	...	40,422	34,985	1,758	33,227	392	
Ranikhet sub-division.	Ranikhet reserve	1874	(a)4,800	4,800	26	4,774	103	(a) Includes area lately taken over from Cantonment not yet shewn in Form No. 49.
	Padholi protected forest	1882	640	640	23	617	13	
	Deoli Khet ditto	1874	25	...	...	...	...	
	Chaubattia ditto	1882	1,280	1,280	...	1,280	15	
	Chillianao ditto	1884	640	640	34	606	15	
	Karchuli ditto	1885	203	203	...	203	7	
	Ganiadeoli ditto	1878	1,280	1,280	14	1,266	32	Areas subject to correction.
	Kathallekh ditto	1878	1,920	1,920	...	1,920	59	
	Siuni ditto	1880	4,480	4,480	...	4,480	85	
	Siun ditto	1885	640	640	...	640	11	
	Dwarson ditto	1888	1,920	1,920	...	1,920	10	
	Bellekh ditto	1888	640	640	...	640	7	
	Bhatronj ditto	1888	1,280	1,920	...	1,920	16	
	Total ...	...	19,748	20,363	97	20,266	373	
	Total I ...	...	60,170	55,348	1,855	53,493	765	
	II.—Areas Protected by the Ordinary Establishment.							
Naini Tal division. — Naini Tal sub-division.	Gagar Ninglát proposed reserve	1888	7,824	10,812	508	10,304	102	Areas subject to correction
Naini Tal division. — Ranikhet sub-division.	Machor protected forest	1888	138	211	48	163	...	
	Siahi Devi ditto	1888	1,920	1,920	...	1,920	...	
	Total, II ...	...	9,882	12,943	556	12,387	102	
	Total, Naini Tal division ...	...	70,052	68,291	2,411	65,880	867	
	Chaubhainsi Range.							
Kumaun division ...	Horai	1876	2,737	2,790	...	2,790	342	
	Nandhaur	1882 to 1889	21,385	24,679	181	24,498	1,300	
	Lakhman Mandi	1883	1,993	1,049	...	1,049	53	

Form No. 51.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

AREA OF FOREST TRACTS PROTECTED FROM FIRE DURING THE DRY SEASON OF 1888, TO ACCOMPANY REPORT FOR 1887-88.

Division.	Forest tracts.	Year in which protection commenced.	Area actually protected up to 30th June, 1889.	During dry season of 1889.				Remarks.
				Area attempted to be protected.	Failures.	Actually protected.	Cost during the season.	
	Talla Des range.							
Kumaun division ...	Jaunla Sál	1876	7,800	7,592	...	7,592	891	
	Sarra Valley	1889	...	2,995	...	2,995	142	
	Saláni	1876	320	403	...	403	116	
	Deolia Gadh	1887	5,311	5,301	...	5,301	1,152	
	Dechauri range.							
	Chausala	1888	2,480	2,391	...	2,391	49	
	Kaila Khur	1888	3,840	4,104	...	4,104	118	
	Total, Kumaun division ...	...	45,866	51,304	181	51,123	4,223	
Garhwál division ...	Shisham Khata (part of Palain forest block No. I) ...	1877	2,020	1847	...	1,847	538	
	Mandalti (ditto ditto)	1888	17,524	24,312	...	24,312	1,080	
	North Patli Dún (part of Patli Dún, forest block No. II) ...	1878	52,053	45,692	...	45,692	2,319	
	South Patli Dún (ditto ditto)	1873	45,631	24,588	...	24,588	2,476	
	Chilkia (part of Chilkia forest, block No. IV)	1872	45,239	50,622	...	50,622	1,924	
	Kotah (part of Kotah forest block No. V)	1877	22,633	36,178	...	36,178	1,146	
	Garhi Bulchand (part of Garhi Bulchand forest block No. VI),	1877	7,112	8,996	...	8,996	704	
	Rehar (part of Rehar forest block No. VII)	1881	11,138	11,531	...	11,531	1,076	
	Total, Garhwál division ...	...	203,550	2,03,766	...	2,03,766	11,263	
	Gori range.							
Ganges division ...	Kunaun	1887	7,972	8,212	...	8,212	270	
	Kauria	1881	2,118	2,118	...	2,118	89	
	Andher Majhera		5,138	5,138	...	5,138	170	
	Jogichaur		788	5,315	...	5,315	217	
	Hazára		1,175	2,095	...	2,095	147	
	Udepur range.							
	Gwalgarh	1887	3,419	3,435	...	3,435	107	
	Sukrao	1882	1,132	1,132	...	1,132	51	
	Kotri range.							
	Dabina	1886	9,704	10,042	...	10,042	552	
	South Kotri	1889	...	3,596	...	3,596	255	
	Sona Nadi range.							
	North Sona nadi	1889	...	12,920	...	12,920	408	
	Total, Ganges division ...	...	31,446	54,003	...	54,003	2,266	

		I.—Areas under special protection, Jhansi pargana.							
Jhánsi division ...	Dhukwan and Sukhwan blocks	1874	1,483	1,483	...	1,483	50	Areas subject to correction.
	Bajna block	1888	457	457	...	457	50	
	Total I ...	...	1,940	1,940	...	1,940	100	
		II.—Areas protected by the ordinary establishment with the aid of villages, Jhansi pargana.						
	Remaining forest blocks	1888	8,613	8,613	...	8,613	...	
	Mau pargana forests	...	6,035	6,035	...	6,035	...	
	Garotha ditto	...	5,127	5,127	...	5,127	...	
	Moth ditto	...	2,230	2,230	...	2,230	...	
	Total II ...	...	22,005	22,005	...	22,005	...	
	Total, Jhánsi division ...	...	23,945	23,945	...	23,945	100	
		I.—Areas under special protection, Lalitpur pargana.						
Lalitpur division ...	Kachnoda forest	1888	190	190	...	190		Areas subject to correction.
	Sairwans	...	35	100	...	100		
		Balabehat pargana.					100	
	Deogarh	1875	998	998	...	998		
	Garauli		751	751	...	751		
	Total I ...	...	1,974	2,039	...	2,039	100	
		II.—Areas protected from fire by the ordinary establishment.						
	Talbehat forests	1888	11,652	11,652	...	11,652	...	
	Bánsi	...	4,664	4,667	2	4,665	...	
	Bánpur	...	4,745	4,745	...	4,745	...	
		Balabehat forests.						
	The balance after deducting walled portion of Deogarh after allowing for 41 acres burnt in clearing fire lines outside wall,	...	2,800	2,800	3	2,797	...	
	Total II ...	...	23,861	23,864	5	23,859	...	
	Total, Lalitpur division ...	...	25,835	25,903	5	25,898	100	
	Total I ...	...	3,44,946	3,68,400	2,036	3,66,364	18,717	
	Total II ...	...	55,748	58,812	561	58,251	102	
	GRAND TOTAL FOR THE CIRCLE ...	...	4,00,694	4,27,212	2,597	4,24,615	18,819	

NOTE.—This form is for the dry season, and not for the financial year.

NAINI TAL;
The 30th July, 1883.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

AREA OF PLANTATIONS, 1888-89.

Division.	Name of plantation.	Area in acres. On 1st April, 1888.	Added during the year.	Excluded during the year.	Area on 31st March, 1889.	Receipts. Of the year.	Charges. Of the year.	Remarks.
			Regular plantations.			Rs.	Rs.	
Naini Tal division ...								
Ránikhet sub-division ...	Ránikhet nursery	50	...	...	50	1,431	1,784	
	Total ...	50	...	...	50	1,431	1,784	
			Cultural operations.					
Naini Tal sub-division ...	Jabar	147	...	...	147	...	...	Of this area about 50 acres are stocked with coppice and natural seedlings.
	China	96	...	...	96	...	32	
	Kahla	39	...	...	39	...	...	Walnut and ash.
	Nairwari	43	...	...	43	...	...	Deodar, walnut, ash and kharsu.
	Deopata	47	...	...	47	...	2	Deobar, walnut and ash.
	Kiladhunga	25	...	...	25	...	3	Ash and Banj.
	Bhadli	33	...	...	33	...	3	Ash and walnut fruit trees.
	Maulani	49	...	...	49	...	32	Banj, chír.
	Chatrani	5	...	...	5	...	6	Area not known.
	Various others plantations imperfectly stocked or success uncertain.	...	...	...	...	...	...	
	Total Naini Tal sub-division	484	...	...	484	...	78	
Ránikhet sub-division ...	Jakhdeo Upper							
	„ Lower							
	Garkhet	367	...	...	367	...	...	Area approximate.
	Jainoli							
	Darimkhet							
	Ghingarukhal							
	Various other plantations imperfectly stocked, incomplete or success uncertain.	...	...	...	...	...	246	Area not known.
	Total Ranikhet sub-division ...	367	...	...	367	...	246	
	Naini Tal sub-division ...	484	...	...	484	...	78	
	Grand Total ...	851	...	...	851	...	324	

Kumaun division ...	Haldwani and Chorgalia	...		7	...	7	...	380	Fruit trees of various kinds.
Garhwál division ...	Chopra plantation		25	5	...	30	...	6	
	Petty cultural operations at Ramnagar, Mohan, Rampur and Leti	...		...	...	...	...	93	
	Total ...		25	5	...	30	...	99	
Ganges division ...	Chila		1½	...	...	1½	...	...	
	Haldukhata		½	...	...	½	...	65	Mango groves in camping grounds.
	Saneh		3	...	...	3	...	5	
	Total ...		5	...	...	5	...	70	
Jhánsi division ... Jhánsi district ...	Sukhwan Dhukwan					44	...		Teak, shisham, sál, bamboo, mango and jaman.
	Ganupura					37	...		
	Babina					...	...		Many of the straggling plantations that were not flourishing have been left to ordinary protection and plantation work in the division concentrated so as to insure the best returns for the expenditure incurred.
	Magarpur		652	2	534	19	...	337	
	Kheri					...	...		
	Bhasneo					20	...		
	Total ...		652	2	534	120	...	337	
Lalitpur division ... Lalitpur district ...	Kuchnowda		25	...	...	25	...		
	Hadda		...	2	. .	2	...		
	Sonrae garden		...	...	...	...	...	54	Plantation of tun and miscellaneous trees.
	Deogarh		...	...	...	...	...		
	Dudhair		...	...	...	...	...		
	Total ...		25	2	...	27	...	54	
Bánda division ... Bánda district ...	Mamaniya		...	...	...	...	...	...	Teak.
	Kaluha		3	...	...	3	...	2	Teak, shisham, mahua, jaman.
	Total ...		3	...	...	3	...	2	
	Grand Total of cultural operations ...		1,561	16	534	1,043	...	1,266	
	Add for regular plantations ...		50	...	...	50	1,431	1,784	
	TOTAL ...		1,611	16	534	1,093	1,431	3,050	Total expenditure under A. VIII. D.

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

Form No 53.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

TREES FELLED OR GIRDLED BY GOVERNMENT AGENCY, BY PURCHASERS, OR BY RIGHTHOLDERS, OR GRANTEES DURING 1888-89.

Division.	Description of trees.	Jardinage or selection fellings.				Thinnings.				Grand Total.
		Government agency.	Purchasers.	Rightholders and grantees.	Total.	Government agency.	Purchasers.	Rightholders and grantees.	Total.	
Naini Tal	Chír	4,647	1,135	6,326	12,108	...	...	...	...	12,108
	Oak	717	2,319	400	3,436	...	...	...	...	3,436
	Sál	...	...	15	15	...	...	...	...	15
	Miscellaneous	287	585	286	1,158	...	...	...	...	1,158
	Total	5,651	4,039	7,027	16,717	...	...	...	...	16,717
Kumaun	Sál	...	2,080	676	2,756	...	...	...	...	2,756
	Sain	...	456	...	456	...	...	...	...	456
	Shisham	...	41	10	51	...	...	...	...	51
	Tún	...	22	7	29	...	...	...	...	29
	Haldu	...	792	25	817	...	...	...	...	817
	Chír	...	4	...	4	...	...	...	...	4
	Miscellaneous	...	6,235	191	6,426	...	...	...	...	6,426
	Total	...	9,630	909	10,539	...	...	...	...	10,539
Garhwál	Sál	...	9,272	5,666	14,938	...	...	...	...	14,938
	Sain	...	724	236	960	...	...	...	...	960
	Shisham	...	...	1	1	...	...	...	...	1
	Tún	...	...	1	1	...	...	...	...	1
	Haldu	...	...	2	2	...	...	...	...	2
	Miscellaneous	...	1,000	8,918	9,918	...	...	...	...	9,918
	Total	...	10,996	14,824	25,820	...	...	...	...	25,820

Ganges ...	Sál	...	403	52	455	..	...	...	...	455
	Sain	...	657	24	681	...	...	...	...	681
	Shisham	...	93	...	93	...	...	...	...	93
	Haldu	...	91	34	125	...	...	...	...	125
	Miscellaneous	...	546	55	601	...	...	...	...	601
	Total	...	1,790	165	1,955	...	...	...	...	1,955
Jhánsi ...	Miscellaneous	1,194	439	96	1,729	...	...	...	...	1,729
Lalitpur ...	Ditto	1,600	1,694	1,648	4,942	...	...	...	...	4,942
Bánda ...	Ditto	1,550	11,562	...	13,112	...	...	...	...	13,112
	Grand Total	9,995	40,150	24,669	74,814	...	...	...	...	74,814

Abstract

	No. of trees.
Sál	18,164
Sain	2,097
Shisham...	145
Tún	80
Haldu	944
Chír	12,112
Oak	3,436
Miscellaneous	37,886
Grand Total ...	74,814

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

[Form No. 54A.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

OUTTURN OF TIMBER AND FIREWOOD DURING THE YEAR 1888-89.

Division.	Range.	Description of fellings.	In cubic feet. Timber in the rough.	Scantlings.	Poles.	Firewood.	Charcoal.	Total.
1	2	3	4	5	6	7	8	9
		I.—Reserved forests.						
Naini Tal.	Naini Tal and Ranikhet.	Jardinage or selection fellings ...	35,972	...	256	39,106	11,073	86,407
		Clearance of boundary lines, fire lines or roads.	...	...	...	23,630	...	23,630
		Standing dry or fallen wood ...	...	...	...	82,301	...	82,301
		Total ...	35,972	...	256	1,45,037	11,073	1,92,338
		II.—Protected forests.						
		Jardinage or selection fellings ...	2,58,168	...	5,198	1,18,587	92,773	4,74,726
		Clearance of boundary lines, fire lines or roads.	...	...	...	35,104	9,786	44,890
		Standing dry or fallen wood ...	...	...	...	1,35,299	1,970	1,37,269
		Total ...	2,58,168	...	5,198	2,88,990	1,04,529	6,56,885
		GRAND TOTAL ...	2,94,140	...	5,454	4,34,027	1,15,602	8,49,223
		I.—Reserved forests.						
Kumaun.	Dechauri, Chaubhainsi, and Talla Des.	Jadinage or selection fellings ...	24,052	92,687	3,209	...	...	1,19,948
		Clearance of boundary lines, fire lines or roads.	2,152	6,063	6,990	...	...	15,205
		Standing dry, or falling wood ...	38,914	35,025	12,729	2,49,441	72,305	4,08,414
		Total ...	65,118	1,33,775	22,928	2,49,441	72,305	5,43,567
Garhwál.	Kosi, Dharon, and Patli Dún.	Jardinage or selection fellings ...	13,969	1,68,169	12,590	...	...	1,94,728
		Special improvement felling ...	...	5,347	...	...	...	5,347
		Coppice or strip cutting ...	...	...	5,031	...	...	5,031
		Clearance of boundary lines, fire lines, or roads,	...	1,330	...	...	...	1,330
		Standing dry or fallen wood ...	918	50,776	2,238	1,62,589	37,700	2,54,221
		Total ...	14,887	2,25,622	19,859	1,62,589	37,700	4,60,657
		I.—Reserved forests.						
Ganges.	Gori, Udepur and Kathir.	Jardinage or selection fellings ...	3,410	24,816	79	...	...	28,305
		Clearance of boundary lines, fire lines or roads.	9,518	...	...	...	...	9,518
		Standing dry, or fallen wood ...	...	1,36,120	1,125	2,41,349	1,005	3,79,599
		Total ...	12,928	1,60,936	1,204	2,41,349	1,005	4,17,422
		I:—Reserved forests:						
Jhánsi.	Jhánsi.	Jardinage or selection fellings ...	...	...	5,187	10,838	640	16,665
		Total ...	...	...	5,187	10,838	640	16,665

[Form No. 54A.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

OUTTURN OF TIMBER AND FIREWOOD, DURING THE YEAR 1888-89.

Division.	Range.	Description of fellings.	In cubic feet. Timber in the rough.	Scantlings.	Poles.	Firewood.	Charcoal.	Total.
1	3	3	4	5	6	7	8	9
		I. Reserved forests.						
Lalitpur.	Lalitpur.	Jardinage or selection fellings ...	620	...	5,657	24,700	...	30,977
		II.—Protected forests.						
		Jardinage or selection fellings ...	165	...	1,688	4,620	...	6,473
		Total ...	785	...	7,345	29,320	...	37,450
		III.—Unclassed state forests.						
Bánda.	Karwi.	Jardinage or selection fellings ...	...	...	31,578	56,095	5,850	93,523
		Total ...	...	...	31,578	56,095	5,850	93,523
		ABSTRACT FORM No. 54A. FOR 1888-89.						
		I.—Reserved forests.						
		Jardinage or selection fellings ...	78,023	2,91,019	32,009	74,644	11,713	4,87,408
		Clearance of boundary lines, fire lines or roads.	11,670	7,393	6,990	23,630	...	49,683
		Standing dry or fallen wood ...	39,832	2,21,921	16,092	7,35,680	1,11,010	11,24,535
		Total ...	1,29,525	5,20,333	55,091	8,33,954	1,22,723	16,61,626
		II.—Protected forests.						
		Jardinage or selection fellings ...	2,58,333	...	6,886	1,23,207	92,773	4,81,199
		Clearance of boundary lines, fire lines or roads.	...	...	...	35,104	9,786	44,890
		Standing dry or fallen wood ...	...	...	...	1,35,299	1,970	1,37,269
		Total ...	2,58,333	...	6,886	2,93,610	1,04,529	6,63,358
		III.—Unclassed state forests.						
		Jardinage or selection fellings ...	...	...	31,578	56,095	5,850	93,523
		Total ...	...	...	31,578	56,095	5,850	93,523
		GRAND TOTAL ...	3,87,858	5,20,333	93,555	11,83,659	2,33,102	24,18,507

Total :—

Timber	... ...	10,01,746
Firewood	... ...	11,83,659
Charcoal	... ...	2,33,102
		24,18,507

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

Form No. 54B.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

OUTTURN OF TIMBER AND FIREWOOD DURING THE YEAR, 1888-89.

Division.	Range.	Description of material.	Removed by Government agency.	Purchasers.	Free grants.	Rightholders.	Remarks.
1	2	3	4	5	6	7	8
		I.—Reserved forests.	C. ft.	C. ft.	C. ft.	C. ft.	
		Sál	...	...	...	5	
		Sandon	...	...	...	25	
		Gethi	...	40	...	430	
		Chír	...	29,940	3,200	1,220	
		Oak	...	...	...	138	
		Miscellaneous	...	90	...	1,140	
		Total, Timber ...	...	30,070	3,200	2,958	
		Firewood	87,040	56,422	1,575	...	
		Charcoal	...	11,073	...	...	
		Total ...	87,040	97,565	4,775	2,958	
Naini Tal ...	Ránikhet and Naini Tal,	**II.—Protected forests.**					
		Sál	...	...	...	460	
		Sandon	...	...	...	80	
		Gethi	...	...	...	50	
		Ash	...	94	...	...	
		Chír	...	13,514	2,760	240,648	
		Oak	...	...	...	8,726	
		Miscellaneous	...	472	...	1,612	
		Total, Timber ...	...	14,080	2,760	246,526	
		Firewood	182,764	105,145	1,081	...	
		Charcoal	...	104,529	...	...	
		Total ...	182,764	223,754	3,841	246,526	
		GRAND TOTAL ...	269,804	321,319	8,616	249,484	849,223

			I.—Reserved forests.						
Kumaun	Dechauri, Chaubhainsi, and Talla Des.	Sál green	...	61,968	10,039	2,437			
		„ dry	...	51,655	909	3,221			
		Haldu green	...	33,898	1,422	100			
		„ dry	...	4,748	...	...			
		Sein green	...	9,808	...	...			
		„ dry	...	138	...	...			
		Jamaun green	...	32	48	...			
		„ dry	...	289	...	...			
		Shisham green	...	1,379	162	...			
		„ dry	...	5,605	9,534	...			
		Tún green	...	734	255	50			
		„ dry	...	1,369	43	...			
		Sandan green	...	...	...	9			
		„ dry	...	146	...	...			
		Chír green	...	88	...	...			
		„ dry	...	14	...	...			
		Miscellaneous green	...	5,182	1,352	6,190			
		„ dry	...	6,504	2,493	...			
		Total, Timber	...	...	183,557	26,257	12,007	5,43,567	
		Firewood	...	63,371	186.070	...			
		Charcoal	...	69,385	2,920	...			
		Grand Total	...	...	316,313	215,247	12,007		
		I.—Reserved forests.							
Garhwál	Dharon, Kosi, and Patli Dún.	Sál green	...	165,464	5,983	1,857			
		„ dry	...	45,314	65	56			
		Sein green	...	22,020	...	...			
		„ dry	...	733	...	...			
		Miscellaneous green	...	3,357	4,626	3,129			
		„ dry	...	7,649	41	74			
		Total, Timber	...	...	244,537	10,715	5,116		
		Firewood	...	162,509	80	...			
		Charcoal	...	37,700	...	...			
		Grand Total	...	...	444,746	10,795	5,116	4,60,657	

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

OUTTURN OF TIMBER AND FIREWOOD DURING THE YEAR 1888-89.

Division.	Range.	Description of material.	Removed by				Remarks.
			Government agency.	Purchasers.	Free grants.	Rightholders.	
1	2	3	4	5	6	7	8
		I.—Reserved forests.	C. ft.	C. ft.	C. ft.	C. ft.	
Ganges	Gori, Udepur, and Kethri,	Sál green	...	11,486	1,955	47	
		„ dry	...	67,313	...	...	
		Haldu green	...	1,271	517	127	
		„ dry	...	520	...	...	
		Sein green	...	13,814	...	360	
		„ dry	...	23,624	...	...	
		Jaman green	...	1,761	...	...	
		„ dry	...	856	...	...	
		Shisham green	...	912	...	...	
		„ dry	...	1,311	...	...	
		Tún green	...	...	...	...	
		„ dry	...	183	...	...	
		Sandan green	...	508	...	14	
		„ dry	...	6,605	...	...	
		Bakli and Dhauri green	...	692	...	...	
		Miscellaneous green	...	3,969	243	147	
		„ dry	...	36,833	...	...	
		Total, Timber ...	...	1,71,658	2,715	695	
		Firewood	...	2,41,349	...	...	
		Charcoal	...	1,005	...	...	
		Grand Total ...	...	4,14,012	2,715	695	4,17,423
		I.—Reserved forest.					
Jhánsi	Jhánsi	Miscellaneous ballis	3,582	1,317	...	288	
		Firewood	1,984	8,776	...	78	
		Charcoal	640	...	...	...	
		Total ...	6,206	100,93	...	366	16,665

		I.—Reserved forests.						
Lalitpur	Lalitpur	Timbers (myors, &c.)	...	310	310	...		
		Miscellaneous ballies	2,024	2,056	1,577	...		
		Total, Timber ...	2,024	2,366	1,887	...		
		Firewood	6,300	13,640	4,760	...		
		Total ...	8,324	16,006	6,647	...		
		II.—Protected forest.						
		Timbers (myors, &c.)	...	60	...	105		
		Miscellaneous ballies	388	306	...	994		
		Total, Timber ...	388	366	...	1,099		
		Firewood	860	2,760	...	1,000		
		Total ...	1,248	3,126	...	2,099		
		Grand Total ...	9,572	19,132	6,647	2,099	37,450	
		Unclassed state forests.						
Bánda	Karwi	Poles	7,509	24,069	...	...		
		Firewood	...	56,095	...	...		
		Charcoal	...	5,850	...	...		
		Total ...	7,509	86,014	...	...	93,523	
		ABSTRACT.						
		I.—Reserved forests.						
		Timber	5,606	6,33,505	44,774	21,064		
		Firewood	95,324	5,46,067	1,92,485	78		
		Charcoal	640	1,19,163	2,920	...		
		Total ...	1,01,570	12,98,735	2,40,179	21,142		
		II.—Protected forests.						
		Timber	388	14,446	2,760	2,47,625		
		Firewood	1,83,624	1,07,905	1,081	1,000		
		Charcoal	...	1,04,529	...	...		
		Total ...	1,84,012	2,26,880	3,841	2,48,625		
		III.—Unclassed state forests.						
		Timber	7,509	24,069	...	...		
		Firewood	...	56,095	...	...		
		Charcoal	...	5,850	...	...		
		Total ...	7,509	86,014	...	...		
		Grand Total ...	2,93,091	16,11,629	2,44,020	2,69,767	24,18,507	

Total :—

Timber		10,01,746
Firewood		11,83,659
Charcoal		2,33,102
Total ...		24,18,507

NAINI TAL;
The 30th July, 1880.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

Form No. 55.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

OUTTURN OF MINOR FOREST PRODUCE DURING THE YEAR 1888-89.

Division.	Description of produce.	Produce removed or utilised.										Remarks.
		By Government agency.		By purchasers.		By free grants.		By rightholders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
					I.—Reserved forests.							
			Rs.		Rs.		Rs.		Rs.		Rs.	
Naini Tal.	Bamboos ... ... scores ...	...	...	25	6	...	...	...	...	25	6	
	Grazing	...	...	...	1,389	...	...	...	...	...	1,389	
	Other minor produce	...	...	...	297	...	...	...	...	...	297	
	Total ...	...	...	...	1,692	...	...	...	...	...	1,692	
					II.—Protected forests.							
	Ringal ... ... scores ...	...	...	393	17	...	...	...	...	393	17	
	Grazing	...	...	...	1,483	...	...	...	...	...	1,483	
	Other minor produce	...	...	...	1,892	...	...	...	...	...	1,892	
	Total ...	...	...	...	3,392	...	...	...	...	...	3,392	
	GRAND TOTAL ...	...	...	...	5,084	...	...	...	...	...	5,084	
					I.—Reserved forest.							
Kumaun.	Bamboos ... ... scores ...	...	...	54,216	5,389	5,264	465	1,389	134	60,869	5,988	
	Grazing	...	...	...	7,474	...	...	...	...	...	7,474	
	Other minor produce	...	...	...	19,608	(a) ...	674	...	...	...	20,282	(a) Rs. 170 included in this for driftwood.
	Total ...	...	...	...	32,471	...	1,139	...	134	...	33,744	
					I.—Reserved forest.							
Garhwal.	Bamboos ... ... scores ...	...	...	1,54,849	15,036	200	18	665	62	1,55,714	15,116	
	Grazing	...	...	...	3,044	...	...	..	...	...	3,044	
	Other minor produce	...	...	...	9,618	(b) ...	58	...	15	...	9,691	(b) Rs. 1,203 for driftwood.
	Total ...	...	...	...	27,698	...	76	...	77	...	27,851	

						I.—Reserved forest.							
Gan-ges.	Bamboos ... ... scores ...	...	...	5,38,244	61,106	...	...	3,680	331	5,41,924	61,437		
	Grazing	...	...	...	6,165	...	...	...	3,106	...	9,273		
	Other minor produce	...	...	...	5,383	...	...	...	466	...	5,849		
	Total, ...	...	...	...	72,654	...	...	...	3,905	...	76,559		
						I.—Reserved forest.							
Jhánsi.	Bamboos ... ... scores ...	1,629	677	450	160	...	...	...	.	2,079	837		
	Grazing	...	...	...	4,659	...	...	...	...	...	4,659		
	Other minor produce	...	466	...	434	...	8	...	6	...	914		
	Total ...	...	1,143	...	5,253	...	8	...	6	...	6,410		
						I.—Reserved forest.							
Lalitpur.	Bamboos ... ... scores ...	18,688	2,433	4,412	554	1,350	7	...	...	24,450	2,994		
	Grazing	...	...	...	2,612	...	...	...	...	...	2,612		
	Other minor produce	...	14	...	1,940	...	4	...	...	...	1,958		
	Total ...	...	2,447	...	5,106	...	11	...	...	...	7,564		
						II.—Protected forests.							
	Bamboos ... ... scores ...	1,670	316	1,019	102	...	...	425	2	3,114	420		
	Grazing	...	...	...	...	...	...	...	...	...	...		
	Other minor produce	...	...	...	68	...	..	...	8	...	76		
	Total ...	...	316	...	170	...	...	...	10	...	496		
	Total, Lalitpur division ...	...	2,763	...	5,276	...	11	...	10	...	8,060		
						III.—Unclaimed state forests.							
Bínda.	Bamboos ... ... scores ...	3,898	488	2,805	388	...	...	...	...	6,703	876		
	Grazing	...	...	...	1,056	...	...	...	...	...	1,056		
	Other minor produce	...	17	...	1,521	(c)...	...	...	...	...	1,538		
	Total ...	...	505	...	2,965	...	...	...	...	...	3,470		

(c) Rs. 3 for driftwood.

ABSTRACT.

Form No. 55.

FOREST DEPARTMENT, N.-W. PROVINECS AND OUDH, CENTRAL CIRCLE.

OUTTURN OF MINOR FOREST PRODUCE DURING THE YEAR 1888-89.

Division.	Description of produce.	Produce removed or utilized.										Remarks.
		By Government agency.		By purchasers.		By free grants.		By rightholders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
	I.—Reserved forest.											
			Rs.		Rs.		Rs.		Rs.		Rs.	
	Bamboos ... ... scores ...	20,317	3,110	7,52,196	82,251	6,814	490	5,734	527	7,85,061	86,378	
	Grazing	...	...	...	25,343	...	...	...	3,108	...	28,451	
	Other minor produce	...	480	...	37,280	(a) ...	744	...	489	...	38,991	(a) 1,373 included in this for drift-wood.
	Total ...	...	3,590	...	1,44,874	...	1,234	...	4,122	...	1,53,820	
	II.—Protected forest.											
	Bamboos ... ... scores ...	1,670	316	1,412	119	...	...	425	2	3,507	437	
	Grazing	...	...	...	1,483	...	...	...	...	...	1,483	
	Other minor produce	...	...	...	1,960	...	...	...	8	...	1,968	
	Total ...	...	316	...	3,562	...	...	...	10	...	3,888	
	III.—Unclassed state forest.											
	Bamboos ... ... scores ...	3,898	488	2,805	388	...	...	...	...	6,703	876	
	Grazing	...	...	...	1,056	...	...	...	...	...	1,056	
	Other minor produce	...	17	...	1,521	(b) ...	...	...	...	...	1,538	(b) Rs. 3 for driftwood.
	Total ...	...	505	...	2,965	...	...	...	...	...	3,470	
	GRAND TOTAL ...	...	4,411	...	1,51,401	(c) ...	1,234	...	4,132	...	1,61,178	(c) Rs 1,376 ditto ditto,

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

Form No. 56.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

ACCOUNT OF TIMBER AND OTHER PRODUCE CUT OR COLLECTED BY GOVERNMENT AGENCY AND BROUGHT TO SALE DEPÔTS OR SOLD LOCALLY DURING THE YEAR 1888-89.

Particulars.	No. or quantity.	Cubic feet.	Total of each head.	
			No. or quantity.	Cubic feet.
BALANCE IN HAND AT COMMENCEMENT OF THE YEAR.				
Chír karris	135	245		
„ planks	395	183		
Miscellaneous ballis	2,342	7,675		
Axle-trees	145	290		
Yokes	14	7		
Plough shafts	5	2		
Thin ballis for roofing	261	348	3,297	8,750
Firewood Mds.	177	354	177	354
Charcoal „	105	1,050	105	1,050
Bamboos No.	200,702	No.	200,702	No.
Kiras „	100	No.	100	„
Kurias „	4,145	No.	4,145	„
RECEIVED FROM THE FORESTS IN DEPÔTS.				
Chír timber	...	523		
Miscellaneous ballis	2,478	7,776	2,478	8,299
Firewood Mds.	101,728	272,490	101,728	272,490
Charcoal „	64	640	64	640
Bamboos No.	334,089	No.	334,089	No.
Kiras „	2,076	No.	2,076	„
Kurias „	53,467	No.	53,467	„
Grass Bdles.	1,000	Bdles.	1,000	Bdles.

Particulars.	No. or quantity.	Cubic feet.	Total of each head.	
			No. or quantity.	Cubic feet.
REMOVED BY PURCHASERS FROM DEPÔTS.				
Chír timber	...	523		
Miscellaneous	2,683	8,094		
Axle-trees	31	62		
Yokes	1	1		
Thin ballis for roofing	32	43	2,747	8,723
Firewood Mds.	101,482	271,998	101,482	271,998
Charcoal „	77	770	77	770
Bamboos No.	312,009	No.	312,009	No.
Kiras „	2,152	No.	2,152	„
Kurias „	54,410	No.	54,410	„
Grass Bdles.	1,000	Bdles.	1,000	Bdles
SOLD LOCALLY.				
Miscellaneous ballis	1,559	3,336		
Axle-trees	747	2,197		
Yokes	12	6		
Plough shafts	25	11		
Thin ballis for roofing	318	426	2,661	5,976
Firewood Mds.	7,618	15,236	7,618	15,236
Bamboos No.	259,649	No.	259,649	No.
Kiras „	61	No.	61	„
Kurias „	68,740	No.	68,740	„
Hides „	13	No.	13	„

Form No. 56.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

ACCOUNT OF TIMBER AND OTHER PRODUCE CUT OR COLLECTED BY GOVERNMENT AGENCY AND BROUGHT TO SALE DEPÔTS OR SOLD LOCALLY DURING THE YEAR 1888-89—*(concluded)*.

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Received from the forests and sold locally.				
Miscellaneous ballis	1,559	3,336		
Axle-trees	747	2,197		
Yokes	12	6		
Plough shafts	25	11		
Thin ballis for roofing	318	426	2,661	5,976
Firewood — Mds.	7,618	15,236	7,618	15,236
Bamboos — No.	259,649	No.	259,649	No.
Kiras — „	61	No.	61	„
Kurias — „	68,740	No.	68,740	„
Hides — „	13	No.	13	„
Grass — Bdles.	30,646	Bdles.	30,646	Bdles.
Pirias — No.	28	No.	28	No.
Received by transfer from sale depôts.				
Bamboos — No.	2,800	No.	2,800	No.
Grand Total — Timber	...	...	8,436	23,025
Grand Total — Firewood — Mds.	...	...	109,523	288,080
Grand Total — Charcoal — „	...	...	169	1,690
Grand Total — Bamboos — No.	...	...	797,240	No.
Grand Total — Kiras — „	...	...	2,237	„
Grand Total — Kurias — „	...	...	126,352	„
Grand Total — Grass — Bdles.	...	...	31,646	Bdles.
Grand Total — Hides — No.	...	...	13	No.
Grand Total — Pirias — „	...	...	28	„

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Grass — Bdles.	30,646	Bdles.	30,646	Bdles.
Pirias — No.	28	No.	28	No.
Lost or written off as useless.				
Miscellaneous ballis	42	143	42	143
Bamboos — No.	412	No.	412	No.
Used by department.				
Chîr karris	135	245		
„ planks	395	183		
Miscellaneous ballis	57	101	587	529
Bamboos — No.	46	No.	46	„
Kurias — „	505	No.	505	„
Transferred to other sale depôts.				
Bamboos — No.	2,800	No.	2,800	„
Balance at close of the year.				
Miscellaneous ballis	2,038	7,113		
Axle-trees	114	228		
Yokes	13	6		
Plough shafts	5	2		
Thin ballis for roofing	229	305	2,399	7,654
Firewood — Mds.	423	846	423	846
Charcoal — „	92	920	92	920
Bamboos — No.	222,324	No.	222,324	No.
Kiras — „	24	No.	24	„
Kurias — „	2,697	No.	2,697	„
Grand Total — Timber	...	...	8,436	23,025
Grand Total — Firewoods — Mds.	...	...	109,523	288,080
Grand Total — Charcoal — „	...	...	169	1,690
Grand Total — Bamboos — No.	...	...	797,240	No.
Grand Total — Kiras — „	...	...	2,237	„
Grand Total — Kurias — „	...	...	126,352	„
Grand Total — Grass — Bdles.	...	...	31,646	Bdles.
Grand Total — Hides — No.	...	...	13	No.
Grand Total — Pirias — „	...	...	28	„

Naini Tal;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

Form No. 57.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

ABSTRACT SHOWING THE VALUE OF TIMBER AND OTHER PRODUCE AT SALE DEPÔTS FOR THE YEAR 1888-89.

Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favor of the year.	Against the year.	
Timber.			Rs.			Rs.	Rs.	Rs.	
Chir karis	135	245	182	...	...	...	...	...	
„ planks ...	395	183							
Miscellaneous ballis	2,342	7,675	434	2,038	7,113	392	...	...	
Axle-trees	145	290	13	114	228	11	...	...	
Thin ballis for roofing ...	261	348	24	229	305	22	...	...	
Ploughs hafts	5	2	...	5	2	...	...	...	
Yokes	14	7	2	13	6	2	...	...	
Total, Timber ...	3,297	8,750	655	2,399	7,654	427	...	228	
Firewood, charcoal, &c.									
Firewood... ... Mds.	177	354	31	423	846	77	...	...	
Charcoal ... ... „	105	1,050	56	92	920	50	...	...	
Bamboos ... ... Nos.	2,087	...	1,448	2,22,324	...	1,618	...	...	
Kiras ... ... „	100	...	9	24	...	2	...	...	
Kurias ... ... „	4,145	...	21	2,697	...	15	...	...	
Total, Fuel, &c. ...	...	1,404	1,505	...	1,766	1,762	197	...	
Total ...	...	...	2,220	...	...	2,189	197	228	

Net difference against the year Rs. 31.

Form No. 57.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

ABSTRACT SHOWING THE VALUE OF LIVE AND DEAD STOCK FOR THE YEAR 1888-89.

Description of timber and other produce.	On hand at commencement of the year.		On hand at close of the year.		Difference in value.		Remarks.
	No.	Value.	No.	Value.	In favor of the year.	Against the year.	
Live-stock.		Rs.		Rs.	Rs.	Rs.	
Elephants	9	14,000	9	14,000	...	...	
Bullocks	47	770	53	858	...	...	
Total. Live stock ...	56	14,770	62	14,858	88	...	
Dead-stock.							
Buildings	104	79,058	128	96,132	...	...	
Sheds	4	866	4	866	...	...	
Tools and plants	14,940	16,093	15,974	18,361	...	...	
Carts	26	637	26	637	...	...	
Almirahs	5	195	5	195	...	...	
Gunpowder, barrels	2	86	2	86	...	...	
Slowmatch, barrels	1	84	1	84	...	...	
Total, Dead-stock ...	15,082	97,019	16,140	1,16,361	19,342	...	
Total ...	...	1,11,789	...	1,31,219	19,430	...	

Net difference in favor of the year, Rs. 19,430.

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

Form No. 58.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

SUMMARY OF REVENUE OF THE DIFFERENT DIVISIONS DURING 1888-89.

Budget heads.	Direction.	Naini Tal division.	Kumaun division.	Garhwál division.	Ganges division.	Jhánsi division.	Lalitpur division.	Bánda division.	Total.
RECEIPTS.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other produce removed from the forests by Government agency—									
a. Timber	...	170 0 0	...	...	...	188 2 8	564 0 11	247 3 10	1,169 7 5
b. Firewood and charcoal	...	44,911 13 0	...	...	...	179 8 3	96 4 0	...	45,087 9 3
c. Bamboos	...	...	...	...	...	676 11 9	2,748 11 7	488 6 0	3,913 13 10
d. Sandalwood	...	...	...	...	...	...	...	...	...
e. Grass and other minor produce	...	...	...	...	...	465 9 6	14 4 0	16 14 0	496 11 6
II.—Timber and other produce removed from the forests by consumers or purchasers—									
a. Timber	...	9,098 3 11	1,02,180 1 11	1,48,545 9 10	49,944 8 0	93 3 2	418 9 10	621 5 9	3,10,871 10 5
b. Firewood and charcoal	...	6,366 15 9	4,659 11 0	2,688 9 6	1,904 2 0	438 12 3	207 12 0	399 6 1	16,665 4 7
c. Bamboos	...	22 10 0	5,389 6 7	15,036 6 1	61,106 5 3	160 7 0	655 13 0	387 12 6	82,758 12 5
d. Grazing and fodder grass	...	2,871 9 6	7,473 10 6	3,043 11 1	6,165 8 6	4,659 2 0	2,611 14 0	1,056 4 6	27,881 12 1
e. Other minor produce	...	2,189 5 0	19,438 5 6	8,415 1 1	5,382 7 9	433 12 3	2,008 0 6	1,517 14 9	39,384 14 10
III.—Drift and waif wood and confiscated forest produce,	...	...	170 6 0	1,202 8 0	...	...	...	3 7 0	1,376 5 0
IV.—Revenue from forests not managed by Government—									
a. Duty on foreign timber and other forest produce	...	...	...	...	...	...	...	...	...
b. Revenue from shared and private forests	...	...	...	...	...	...	...	...	...
V.—Miscellaneous—									
a. Fines and forfeitures	...	991 10 0	54 0 0	5 8 0	...	1 0 0	...	...	1,052 2 0
b. Refunds	...	30 0 0	13 8 0	59 8 5	14 14 0	...	...	...	117 14 5
c. Other sources	1 0 0	24 0 0	764 10 0	233 14 5	142 1 9	192 15 6	3 0 0	694 9 3	2,056 2 11
Total, Receipts	1 0 0	66,546 3 2	1,40,143 11 6	1,79,230 12 5	1,24,659 15 3	7,489 4 4	9,328 5 10	5,433 4 2	5,32,832 8 8

CALCUTTA,
The 25th May, 1889.

JAS. TAYLOR,
Assistant Comptroller-General (Forests).

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

SUMMARY OF EXPENDITURE OF THE DIFFERENT DIVISIONS DURING 1888-89.

Budget Heads.	Direction.	Naini Tal division.	Kumaun division.	Garhwál division.	Ganges division.	Jhánsi division.	Lalitpur division.	Bánda division.	Total.
A.—CONSERVANCY AND WORKS.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—									
a. Timber	...	...	...	...	...	18 4 2	178 7 0	210 14 0	407 9 2
b. Firewood and charcoal	...	20,106 8 1	...	...	...	103 10 5	20 0 0	...	20,230 2 6
c. Bamboos	...	...	...	...	...	155 3 0	1,496 3 6	272 10 0	1,924 0 6
d. Sandalwood	...	...	...	...	...	...	...	...	...
e. Grass and other minor produce	...	...	...	...	...	241 0 2	...	...	241 0 2
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS	...	367 11 3	6,372 1 11	7,229 6 11	8,990 6 4	381 0 0	417 11 10	...	23,758 6 3
III.—DRIFT AND WAIF WOOD AND CONFISCATED FOREST PRODUCE	...	...	...	...	...	...	...	...	...
IV.—REVENUE FROM FORESTS NOT MANAGED BY GOVERNMENT—									
a. Duty on foreign timber and other forest produce ...	...	...	...	...	...	...	...	...	...
b. Revenue from shared and private forests	...	...	...	...	...	...	...	...	...
V.—RENT OF LEASED FORESTS AND PAYMENTS TO SHAREHOLDERS IN FORESTS MANAGED BY GOVERNMENT ...	...	...	...	...	...	...	...	609 9 5	609 9 5
VI.—LIVE STOCK, STORES, TOOLS AND PLANT—									
a. Purchase of cattle	...	...	...	...	...	57 12 0	30 0 0	...	87 12 0
b. Feed and keep of cattle	...	...	1,159 13 9	2,342 14 3	1,434 13 3	387 10 10	2,067 13 5	...	7,393 1 6
c. Purchase of stores, tools and plant	331 10 0	183 1 0	1,601 12 0	699 8 11	463 3 4	98 11 0	...	...	3,377 14 3
VII.—COMMUNICATIONS AND BUILDINGS—									
a. Roads and bridges...	...	694 8 2	14,199 6 2	14,700 14 3	5,073 2 0	60 0 0	250 0 0	50 0 0	35,027 14 7
b. Buildings	527 2 6	1,349 13 2	5,898 3 9	4,664 3 1	3,546 0 5	256 9 10	349 4 10	60 3 6	16,651 9 1
c. Other works	...	...	300 0 0	166 11 6	...	3 2 4	...	...	469 13 10
VIII.—DEMARCATION, IMPROVEMENT AND EXTENSION OF FORESTS—									
a. Demarcation	...	1,090 8 8	79 6 0	199 14 4	676 2 9	696 12 10	41 0 0	141 0 0	2,924 12 7
b. Compensation for land and rights	...	...	...	...	5 2 0	...	127 6 6	...	132 8 6
c. Surveys and working plans	...	...	...	145 4 6	64 12 8	20 0 0	...	...	230 1 2
d. Sowing and planting	...	2,108 4 8	379 14 6	98 8 4	69 13 0	337 3 6	54 2 0	2 0 0	3,049 14 0
e. Protection from fire	263 5 0	1,115 12 10	3,223 12 9	10,596 13 6	2,084 3 11	100 0 0	100 0 0	...	17,484 0 0
f. Other works	...	467 14 7	856 11 2	699 14 5	205 6 4	20 0 0	...	...	2,249 14 6
IX.—MISCELLANEOUS—									
a. Refunds	...	...	22 9 6	859 9 0	0 11 9	...	12 4 0	...	895 2 3
b. Law charges	1 4 0	15 0 0	...	...	...	...	...	2 4 0	18 8 0
c. Other charges	53 3 6	28 13 0	193 6 6	428 11 9	410 15 0	59 0 6	117 2 2	3 2 6	1,294 6 11
TOTAL A.—CONSERVANCY AND WORKS ...	1,176 9 0	27,527 15 5	34,287 2 0	42,832 6 9	23,024 12 9	2,996 0 7	5,261 7 3	1,351 11 5	1,38,458 1 2

Form No. 58.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

SUMMARY OF EXPENDITURE OF THE DIFFERENT DIVISIONS DURING 1888-89—(*concluded*).

Budget heads.	Direction.	Naini Tal division.	Kumaun division.	Garhwál division.	Ganges division.	Jhánsi division.	Lalitpur division.	Ránda division.	Total.
B.—ESTABLISHMENT.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—SALARIES—									
a. Conservators	15,820 9 8	...	...	...	...	...	...	...	15,820 9 8
b. Superior officers	1,650 0 0	8,282 4 1	10,734 8 0	8,136 11 11	7,354 0 10	...	...	...	36,157 8 10
c. Subordinate forest and depôt establishments ...	...	3,496 2 8	8,302 10 7	10,094 14 0	6,269 4 1	1,163 8 0	1,678 9 7	1,439 10 8	32,444 12 1
d. Office establishments	4,088 11 9	1,065 12 11	2,128 7 4	1,936 11 5	1,399 10 3	59 0 0	204 0 0	780 0 0	11,662 5 8
e. Deputation and special allowances	...	1,800 0 0	...	...	...	...	...	...	1,800 0 0
II.—TRAVELLING ALLOWANCE—									
a. Conservators	1,032 4 0	...	...	...	...	...	...	...	1,032 4 0
b. Superior officers	310 0 0	1,150 0 0	1,613 12 4	1,557 1 4	1,387 0 0	...	...	...	6,017 13 8
c. Subordinate forest and depôt establishments ...	...	133 0 3	1,071 5 10	1,178 0 5	1,052 13 8	88 0 0	182 13 4	224 5 4	3,930 6 10
d. Office establishments	142 4 0	88 10 0	490 0 0	506 10 8	430 3 8	...	6 5 4	122 5 4	1,786 7 0
III.—CONTINGENCIES.—									
a. Stationery	3 12 8	28 0 0	100 6 1	18 6 6	70 13 0	17 8 0	28 9 0	12 0 0	279 6 10
b. Carriage of tents and records ...	630 0 9	230 1 4	439 15 3	561 0 1	475 13 2	...	...	...	2,336 14 7
c. Rents, rates and taxes	112 3 4	60 0 0	12 0 0	...	21 8 0	12 0 0	...	...	217 11 4
d. Pay of police guards	291 0 0	...	...	...	...	...	...	...	291 0 0
e. Official postage	332 4 0	62 14 0	96 7 6	100 0 0	67 4 6	11 1 0	44 0 6	...	713 15 6
f. Sundries	478 3 3	145 7 9	228 12 7	419 15 10	133 4 9	15 0 0	3 0 0	27 3 5	1,450 15 7
TOTAL B.—ESTABLISHMENTS ...	24,891 5 0	16,542 5 0	25,218 5 6	24,509 8 8	18,661 11 11	1,366 1 0	2,147 5 9	2,605 8 9	1,15,942 3 7
GRAND TOTAL OF EXPENDITURE ...	26,067 14 0	44,070 4 8	59,505 7 6	67,341 15 5	41,686 8 8	4,362 1 7	7,408 13 0	3,957 4 2	2,54,400 4 9

CALCUTTA,
The 25th May, 1889.

JAS. TAYLOR,
Assistant Comptroller-General (Forests).

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

ACCOUNT CURRENT FOR THE YEAR 1888-89.

Dr. **Cr.**

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To Cash Balance	...	9,952 4 4	*By Expenditure as per Annual Summary, Form No.* 58 ...	...	2,54,400 4 9
„ *VIII.—Assessed Taxes*—			„ *Deposits*	...	30 0 0
Income Tax—Deductions from salaries	...	1,433 7 2	„ *Forest Cash Remittances, Local*—		
„ *Revenue as per Annual Summary, Form No.* 58	...	5,32,832 8 8	Remittances to Treasuries	4,88,094 11 6	...
„ *Service Funds*—			Inter-Divisional Transfers	769 4 6	...
Civil Fund—Ordinary, (Bengal)	...	...			4,88,864 0 0
Do. Additional, (do.)	...	...	„ *Advances Recoverable*	...	35,673 8 10
Military Fund (Bengal)	243 0 0	...	„ *Suspense*	...	1 5 4
Do. (Madras)	...	...	„ *Account Current (other Governments)*—		
Do. Orphan Fund (Bengal)	210 0 0	...	Remittances to the Government of India	180 0 0	...
Uncovenanted Service Family Pension Fund (Bengal) ...	1,283 5 0	...			180 0 0
General Family Pension Fund	...	...	„ *Inter-Departmental Transfers*—		
Hindu Family Annuity Fund	...	...	Public Works Department, other branches	744 10 0	...
		1,736 5 0			
„ *Deposits*	...	...	Military Department	44,670 14 4	...
„ *Forest Cash Remittances, Local*—					
Forest cheques drawn	2,42,541 10 10	...	Civil Department	325 0 0	...
Inter-Divisional Transfers	769 4 6	...			45,740 8 4
		2,43,310 15 4			
„ *Advances recoverable*	...	37,635 8 9			
„ *Suspense*	...	1 5 4			
„ *Account Current (other Governments)*—					
Remittances from Government of India	2,094 4 11	...			
		2,094 4 11			
„ *Inter-Departmental Transfers*—			„ *Cash Balance*	...	5,914 5 3
Public Works Department, other Branches	536 2 0	...			
Military Department	227 14 0	...			
Civil Department—					
Survey of India	486 2 0	...			
Mathematical Instruments Department	70 10 0	...			
Miscellaneous	486 9 0	1,807 5 0			
Total	...	8,30,804 0 6	Total	...	8,30,804 0 6

CALCUTTA;
The 25th May, 1889.

JAS. TAYLOR,
Assistant Comptroller-General, Forests.

Form No. 60.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

REVENUE RECEIVED AND OUTSTANDINGS ON ACCOUNT OF REVENUE DURING 1888-89.

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the department at end of year.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Direction ...	Timber, poles, grazing dues, and minor produce.	...	1 0 0	1 0 0	1 0 0	...
Naini Tál ...	Ditto ditto ...	...	66,621 3 2	66,621 3 2	66,546 3 2	75 0 0
Kumaun ...	Ditto ditto ...	6,615 0 0	1,33,528 11 6	1,40,143 11 6	1,40,143 11 6	...
Garhwál ...	Ditto ditto ...	...	1,79,230 12 5	1,79,230 12 5	1,79,230 12 5	...
Ganges ...	Ditto ditto ...	...	1,24,659 15 3	1,24,659 15 3	1,24,659 15 3	...
Jhánsi ...	Ditto ditto ...	...	7,819 4 4	7,819 4 4	7,489 4 4	330 0 0
Lalitpur ...	Ditto ditto ...	...	9,328 5 10	9,328 5 10	9,328 5 10	...
Bánda ...	Ditto ditto ...	296 3 6	5,980 4 5	6,276 7 11	5,433 4 2	843 3 9
	Total ...	6,911 3 6	5,27,169 8 11	5,34,080 12 5	5,32,832 8 8	1,248 3 9

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

Form No. 61.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

OUTSTANDINGS AND LIABILITIES ON ACCOUNT OF CONTRACTORS AND DISBURSERS FOR 1888-89.

Division.	Department Debtor.			Department Creditor.			Balance due.	
	At commencement of year	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings.)	By Department (Liabilities.)
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Direction, ...		1,205 14 3	1,205 14 3	91 13 4	1,241 15 7	1,333 12 11	127 14 8	...
Naini Tal, ...		1,648 11 2	1,648 11 2	867 9 10	1,485 13 0	2,353 6 10	704 11 8	...
Kumaun, ...		13,119 11 3	13,119 11 3	4,163 4 6	11,824 0 5	15,987 4 11	2,867 9 8	...
Garhwál, ...		7,826 8 2	7,826 8 2	5,598 13 0	7,279 5 2	12,878 2 2	5,051 10 0	...
Ganges... ...		8,996 6 11	8,996 6 11	327 15 1	8,904 1 4	9,232 0 5	235 9 6	...
Jhánsi		1,698 12 3	1,698 12 3	496 8 3	1,483 13 7	1,980 5 10	281 9 7	...
Lalitpur, ...		1,947 10 4	1,947 10 4	...	2,262 9 4	2,262 9 4	314 15 0	...
Bánda		1,191 14 5	1,191 14 5	...	1,191 14 5	1,191 14 5	...	...
Total ...	...	37,635 8 9	37,635 8 9	11,546 0 0	35,673 8 10	47,219 8 10	9,584 0 1	.8.

CALCUTTA;
The 4th September, 1889.

JAS. TAYLOR,
Asst. Comptroller-General, Forests.

Form No. 62.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, CENTRAL CIRCLE.

FINANCIAL RESULTS OF THE YEAR 1888-89.

Division.	Timber and other produce removed from the forests by Government agency.		Other Revenue.		Formation, protection and improvement of forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Direction ...	...	...	1	...	...	1	Direction	Division charges proportionately distributed amongst other divisions.
Naini Tal ...	44,982	27,406	21,564	7,579	12,085	66,546	47,070	
Kumaun ...	...	...	1,40,144	34,167	32,338	1,40,144	66,505	
Garhwál ...	...	...	1,79,231	35,665	40,177	1,79,231	75,842	
Ganges ...	...	...	1,24,660	26,784	20,903	1,24,660	47,687	
Jhánsi ...	1,510	827	5,979	1,468	2,572	7,489	4,867	
Lalitpur ...	3,423	2,406	5,905	2,545	3,157	9,328	8,108	
Bánda ...	753	850	4,681	1,479	1,902	5,434	4,321	
Total ...	50,668	31,489	4,82,165	1,09,687	1,13,224	5,32,833	2,54,400	

The debits have been made as follows :—

Naini Tal and Lalitpur ...

I.—Timber and other produce.

$$A\left\{I+\frac{VI}{2}+\frac{VII}{3}+\frac{IX}{3}\right\}+\frac{B}{3}+\frac{\text{Direction Division quota of charges.}}{3}$$

II.—Other produce.

$$A\left\{II+III+IV+\frac{V}{2}+\frac{VII}{3}+\frac{IX}{3}\right\}+\frac{B}{3}+\frac{\text{Direction Division quota of charges.}}{3}$$

III.—Formation, protection and improvement of Forests.

$$A\left\{\frac{VI}{2}+\frac{V}{2}+\frac{VII}{3}+VIII+\frac{IX}{3}\right\}+\frac{B}{3}+\frac{\text{Direction Division quota of charges.}}{3}$$

Kumaun, Garhwál and Ganges,

I.—Timber and other produce.

Nil.

II.—Other Revenue.

$$A\left\{II+III+IV+V+\frac{VI}{2}+\frac{VII}{2}+\frac{IX}{2}\right\}+\frac{B}{2}+\frac{\text{Direction Division quota of charges.}}{2}$$

III.—Formation protection and improvement of forests.

$$A\left\{\frac{VI}{2}+\frac{VII}{2}+VIII+\frac{IX}{2}\right\}+\frac{B}{2}+\frac{\text{Direction Division quota of charges.}}{2}$$

Jhánsi and Bánda ...

I.—Timber and other produce.

$$A\left\{I+III+IV+\frac{V}{6}+\frac{VI}{6}+\frac{VII}{6}+\frac{IX}{6}\right\}+\frac{B+\text{Direction Division quota of charges.}}{12}$$

II.—Other produce.

$$A\left\{II+\frac{V}{3}+\frac{VI}{3}+\frac{VII}{3}+\frac{IX}{3}\right\}+\frac{5}{12}\text{ of B and Direction Division quota.}$$

III.—Formation protection and improvement of forests.

$$A\left\{\frac{V}{2}+\frac{VI}{2}+\frac{VII}{2}+VIII+\frac{IX}{2}\right\}+\frac{\text{B and Direction Division quota.}}{2}$$

NAINI TAL;
The 30th July, 1889.

C. BAGSHAWE,
Conservator of Forests, Central Circle.

No. 60 L.G. of 1889-90.

From

C. J. PONSONBY, Esq., .

Offg. Conservator of Forests, N.-W. Provinces and Oudh,

Oudh Circle,

To

The SECY. to GOVERNMENT, N.-W. P. and OUDH,

In the Revenue (Forests) Department.

Dated Naini Tal, the 15th August, 1889.

Sir,

I have the honor to submit the Annual Progress Report of the Oudh Circle. The Report is late owing to the illness of Captain Wood who had charge of the circle during the year under review. I had to take over the duties of the Conservator at short notice and have lost no time in submitting the report.

I have the honor to be,

Sir,

Your most obedient servant,

C. J. PONSONBY,

Offg. Conservator of Forests, N.-W. P. and Oudh,

Oudh Circle.

OUDH CIRCLE REPORT.

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LIBRARY

OUDH CIRCLE.

N.-W. P. AND OUDH.

ANNUAL PROGRESS REPORT

OF

FOREST ADMINISTRATION

FOR THE YEAR ENDING 31st MARCH, 1889.

By C. J. Ponsonby, Esq., Officiating Conservator of Forests, Oudh Circle.

INTRODUCTION.

1. Captain Wood commenced his tour of inspection on the 15th October, 1888, visiting, first, the Bahramghát Depôt and Saw Mills, arranging for the sale by periodical auctions of firewood, offcuts and rejected timber which had accumulated there in large quantities. He then proceeded to Gorakhpur, where he arranged with Mr. Campbell for carrying on the five year plan of operations. Captain Wood also arranged for the supply of fuel to the Bengal and North-West Railway Company. He then proceeded to Dinapur where he met Mr. Home (Conservator of Forests, Bengal,) and conferred with him regarding the drift operations on the Gandak. Captain Wood then went to the Patna Opium Factory, where he inspected the planks supplied in 1886-87 which were lying there unutilized, having been rejected by the Opium Agency as unseasoned. These planks had deteriorated in value from exposure. The Conservator settled this case with the Opium Department by accepting a reduced rate for the planks. He then returned to Bahramghát, and sent off his camp to the Gonda district, where he joined it at Janakpur on the 6th of December. He inspected the forests and principal works of the division, marching towards the Bahraich Forests, arriving at Bankatwa (near Bhinga) about the 19th December, joining the camp of His Honor the Lieutenant-Governor, North-Western Provinces, and Chief Commissioner for Oudh, at Bhinga on the 29th December. He marched with His Honor through the Bahraich, Kheri and Bhira Forests, finally leaving the Lieutenant-Governor's camp at Gola (Bhira Sub-division) on the 26th January, 1889. Returning to Duduaghát in the Kheri Division, Captain Wood's time was fully taken up till the middle of April, maturing the working plan of the Kheri Division. Here he had a severe attack of fever, which he was unable to shake off till the middle of May.

2. *Inspection of Offices.*—During the year under review all the divisional offices except Bahraich and Gorakhpur and the Bahramghát Depôt offices were inspected and found in order.

3. *System of working in conjunction with District Officers.*—The system continues to work well. There is no doubt that when the chief District and Forest Officers take a lively interest in the forest administration of their districts, the public welfare is advanced in no small degree. I have much pleasure in stating that all the District Officers connected with Government forests have given great assistance in forest matters during the past year: namely, Lieutenant-Colonels, Harrison, Noble and Cowie and Messrs. Roberts (of Gorakhpur) and Holderness at Pilibhít. These officers have shown a special interest in forest matters and are fully aware of the higher aims of forest administration, which they know embodies the real and lasting interests of the people.

4. *The year 1888-89 (a).*—The principal event of the year under review was the visit of His Honor the Lieutenant-Governor, North-Western Provinces, and Chief Commissioner of Oudh. Sir Auckland Colvin traversed the forests of the Bahraich, Kheri and Bhira Divisions. I am of opinion that the advent of the Lieutenant-Governor in the forests will commence a new era in forest administration.

His Honor was able to see for himself how matters stand at present, little or nothing escaping his observation.

(b) "Improvement fellings" were commenced this year in the Kheri Division (trans-Sarda). The outturn of this work was made into scantlings with a view to supplying the native demands at Lucknow, Shâhjahânpur, Sitapur, &c., with cheap house-building timber of a lasting nature. This work was in continuation of the late Mr. Dodsworth's improvement fellings of 1875-76.

CHAPTER I.

I.—Area and Boundaries.

5. *(a) Area of the Circle.*—The area remains the same as in 1887-88.

(b) Area of Divisions.—The areas of the divisions are therefore the same :—

Divisions.	1887-88, square miles.	1888-89, square miles.	Difference.
Pilibhît	152	152	
Bhira	151	151	
Kheri (trans-Sarda)	263	263	
Bahraich	325	325	
Gonda	155	155	
Gorakhpur	157	157	
Total	1,203	1,203	

6. In the Kheri district (cis-Sarda) there are several Government forests not yet made over to the Forest Branch of the administration. This might be done with advantage, as the value of all forest lands has risen cent per cent. since the opening of the railway to the forests. At present these forests are sadly deteriorating through insufficient control. The Conservator wishes to bring this matter prominently to the notice of Government. The Deputy Commissioner has no objection to this administrative change. The matter will be treated fully in a separate communication.

7. *(a)* In the Kheri Division (trans-Sarda) an exchange is to be made of certain village lands, belonging to the Khairigarh estate, surrounded by Government forests, for some outlying portions of forests; this matter has been under consideration for some years. Captain Wood believes that the Commissioner of the Sîtapur Division will probably take up the subject this year, as he has been over the ground and thoroughly understands the case. With a view to this exchange the boundaries have not been repaired. The Divisional Officer fears that unless action is taken immediately complications will arise with regard to existing boundaries, some of these being nearly obliterated.* *(b)*. A like exchange is asked for by the Râja of Bhinga,* and will be carried out as soon as practicable, as it is a matter of great importance that the State forests should be freed as speedily as possible from all "privileges" and outside interference.

(c) In Gonda, the Forest Officer has sent up proposals through the Deputy Commissioner for an exchange of the "district forest" of Debinagar, and the private forests of Joatpur, for an equivalent area of culturable land in the Government forests of Jaipur, Shambhunagar and Ramgarh. Another exchange has been proposed with the private waste lands of Kewalpur and Jankinagar (falling entirely, or very nearly so, within the Government reserves), for outlying portions of open culturable land in the

* Since the above was written I have arranged with the Deputy Commissioners of Kheri and Bahraich, for the formal gazetting and taking up of these village lands, and the matter shall be sent up for the orders of the Local Government immediately.

Government forest area of Jaipur. The total area proposed for exchange is about 1,200 acres. I am of opinion that all the so-called district forests in Gonda should be made over to the officers of Government in the Forest Department, who are specially appointed to guard the interests of State forests.

(*d*) In Gorakhpur the land settlement is not finished. It is believed this prevents, for the present, the making over of about 4,000 acres of "district" grass *ruks* and other lands to the Forest Department; when these have been made over, there are several exchanges necessary with private landholders to consolidate the Government forest area. I hope this important matter will receive the attention due to it in the immediate future*.

8. *Boundaries, circle.*—The progress made in ditching forest boundaries is shown below :—

Division.	I. Miles of new boundary inspection path.	II. Mileage of new ditching.	III. Miles of broad boundary cleared.	IV. Number of posts erected.	V. Miles of Nepal boundary cleared.
	M. f.	M. f.			M. f.
Pilibhít	...	4 1	...	103	...
Bhira (cis-Sarda) ...	10	0 6	...	...	...
Kheri (trans-Sarda) ...	...	4 7	...	...	13 4
Bahraich	...	...	...	...	13 4
Gonda	...	10 0	...	4	37 7
Gorakhpur	...	...	...	...	...
Total ...	10	19 6	...	107	64 7

Divisional Officers have done good work inspecting boundaries : the greater portion has been traversed during the year.

Boundaries, Divisional.—The following relates to what could not well have been shown in the above statement :—

(a) In Pilibhít the boundary of Bybaha, made over to the Forest Department, was demarcated this year, and 103 posts were erected.

The boundary of Barrua Kotra had to be revised this year, as the Ranger in charge neglected to erect pillars opposite the trees blazed for the purpose.

The surveyors deputed by the Forest Survey Branch, it is believed, did not survey the boundaries, but contented themselves with copying from the one inch Revenue Survey maps, as these boundaries differ from the "hadbast" maps; the boundaries as shown on the 4″ = 1 mile scale are therefore incorrect.

(b) In the Bhira Division there is now a total length of 166¼ miles of boundary ditching. There remains three miles to finish the permanent demarcation. The whole cost of the above, to date, has been borne by the State and amounts to over Rs. 4,150. I regret to find that landholders are combining in the Kheri district to dispute the forest boundary; this is due no doubt to the value of land having risen so enormously owing to the advent of the railway. Three cases occurred in the current year.

The Bhira Forests have as a natural consequence of rail extension and general development of the country now become exceedingly valuable and workable; they should therefore be surveyed and mapped without delay.

(c) In the Kheri Division 4 miles 7 furlongs 527 feet of ditching were dug at a cost of Rs. 119-7-3, and a portion, 1 mile 3 furlongs 110 feet, was repaired at a cost of Rs. 13-3-3. It will be seen by reference to the foregoing statement that the above 4 miles 7 furlongs have been entered as a new work: it may be considered as such, for there was no trace of the old ditch left.

Since the above was written I have arranged with the Collector of Gorakhpur for the formal gazetting and taking up of these village lands, and the matter shall be sent up for the orders of the Local Government immediately.

(d) In Bahraich 54¼ miles of boundary ditch were cleared at a cost of Rs. 774-11-5, or Rs. 14-5-7 per mile.

(e) In Gorakhpur 4 miles and 57 chains of boundary ditch were repaired in the Domakhand Forests; 40 acres of low-lying grass land were made over, on appeal, to Maulvi Habibulla (late Subordinate Judge) by the Settlement Officer. The boundaries between the "Dudhai" Reserved Forests and Jangal "Farzand Ali" still remain unsettled, but shall be taken up at once.*

THE NEPAL BOUNDARY.

9. *Kheri Division.*—Thirteen miles and 4 furlongs of the Nepal boundary have been cleared, as usual, on the British side of the neutral strip, but little has been done by the Nepalese on their side. Six of the old masonry pillars have, by the order of Government, been dismantled and replaced by stone monoliths; this was done under the immediate supervision of the Deputy Commissioner and the Divisional Forest Officer on the part of the British Government, and a minor official as representing the Nepalese Darbár. This work was afterwards inspected by the Commissioner of Sítapur.

Bahraich Division.—The Nepal boundary in the Motipur and Chakia Charda Ranges was cleared throughout.

Gonda Division.—The 30 feet clearing and 3 foot bridle path were cleared on the Nepal frontier as usual. The Nepalese authorities have done nothing whatever on their part to clear the stipulated 30 feet. The matter has been referred to the Deputy Commissioner of Gonda by the Divisional Officer.

CHAPTER II.

SURVEYS, WORKING PLANS AND ANNUAL PLANS OF OPERATIONS.

10. *Surveys.*—The revenue survey of the Gorakhpur district is over; the sum of Rs. 6,320-10-9 has been debited to the Forest Department.

11. *Working Plans, general.*—There are no working plans for the Pilibhít, Bhira, Bahraich and Gonda Forests.

(a) The Kheri "working plan" has been drafted by Captain Wood and is now in the hands of the Inspector-General of Forests.

(b) A working plan for the Gorakhpur Forests is in course of preparation as directed in Local Government No. $\frac{154F}{729-13}$ of 21st February, 1889, in conformity with the suggestions of the Inspector-General of Forests, and shall be submitted shortly †. In Kheri, in anticipation of the sanction to the general outlines of Messrs. Whittall and Broun's working plan, instead of selecting only the finest and straight sound sál, as has been done hitherto, all first class sound sál trees were felled on the area on which the fellings took place. The usual number of trees, *viz.*, 2,500, were felled; the details of this work will be found in chapter IV.

12. *Annual Plans of operations, circle.*—These have in all divisions been acted up to as far as practicable. The details will be found in chapter IV, yield and working.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

(1) Establishment.

13. Captain Wood, Conservator, held charge of the circle throughout the year.

* Since the above was written I have arranged with the Collector of Gorakhpur to have these portions made over to Government under Act X of 1870, because the possession and working of them by any other agency than the Forest Department is opposed to the interests of the State.

† This working plan has been framed by me since writing the above.

The divisions were in charge of the following officers :—

Charges.	Officers in charge.	Remarks.
Pilibhít	Mr. C. J. Ponsonby, Deputy Conservator.	Whole year.
Bhira (cis-Sarda) ...	Ditto ditto ...	Ditto.
Kheri (trans-Sarda) ...	Mr. W. G. Allan, Deputy Conservator.	Whole year assisted by Mr. M. Hill, Assistant Conservator.
Bahraich	Mr. B. A. Rebsch, Assistant Conservator.	Whole year.
Gonda	Babu Karuna Nidhan Mukarji, Sub-Assistant Conservator.	Whole year.
Gorakhpur ...	Mr. A. Campbell, Officiating Deputy Conservator.	Whole year assisted by Babu Raghunath Pathak, Sub-Assistant Conservator.
Bahramghát Depôt and Saw Mills.	Bábu Kanhaiya Lal, Sub-Assistant Conservator.	Whole year.

14. The Oudh Circle is under-officered, and until the superior or controlling staff is strengthened the forests cannot be worked to their full extent.

There should be an Assistant in charge of felling operations in the Kheri Division, another in charge of the Motipur Range, Bahraich; a third to superintend the strip felling in the Bhira Sub-division: these three officers are urgently required.

15. *Subordinate staff.*—The re-organization of the subordinate staff has been sanctioned by the Government of India (No. 470F. of 29th May, 1889).

16. *The Forest School, Dehra.*—Of the three Forest apprentices sent to Dehra, Raghubans Sahaya and Kampta Parshad have passed out this year, and are employed in the Bahraich Division. The third apprentice, a Native Christian, David Barrow, has commenced his second year's course.

GENERAL PROTECTION AND BREACHES OF FOREST LAW.

17. *General protection (a).*—The arrangements for the better management and protection of the reserved forests in the Pilibhít district are progressing. Some good results can be credited to the year, notably that in pargana Pilibhít. The number of cattle grazed has been limited,* and under the same order of the Local Government (No. $\frac{428F.}{481-32}$ of 23rd July, 1888,) firing has been prohibited in the forests open to grazing.

(b) In pargana Puranpur, by Local Government No. $\frac{726F.}{481-42}$ of 14th November, 1888, firing has been prohibited in the *12 Restricted* compartments, and cattle have been excluded from these compartments from the 1st of February to the setting in of the rains annually. The orders regarding the above fire protection have not been heeded by the people, but more will be said on this subject under the proper head "Fire conservancy."

By Local Government No. $\frac{564F.}{53-61}$ of 4th September, 1888, felling has been forbidden in the restricted compartments.

(c) Bhira Division.—A petition was presented to His Honor the Lieutenant-Governor, objecting to the closing of a portion (4,302 acres) of the Barauncha Forests, but after careful consideration of each of the points raised in the petition, it was rejected.

(d) Much has yet to be done with regard to the general protection of the forests. It is very necessary that the privileged villages (if Government still intend to allow privileges) should be restricted to certain quantities of free produce in smaller areas, and at given seasons, and not all the year round as at present.

* By *North-Western Provinces and Oudh Gazette* Notification No. $\frac{283F.}{481-53}$ of 8th April, 1889, the number was limited to 7,108 head of cattle.

18. *Breaches of Forest Law, circle*, as compared with 1887-88, are given below :—

Year.	Prosecutions.			Convictions.	Acquittals.	Cases pending at close of the year.
	Pending from 1887-88.	New cases of 1888-89.	Total.			
1887-88	...	81	81	74	7	
1888-89	...	74	74	70	4	
Difference	...	—7	—7	—4	—3	

The results are highly satisfactory, showing that more than ordinary care has been taken in sending up cases for trial.

The greater number of these cases are against unauthorized felling and illicit grazing in the Bahraich and Gonda districts. This was noted last year. I am of opinion that if the Native Magistrates of these districts were to enhance the punishments awarded, that the above crimes would diminish in proportion.

19. *Cases compounded by Forest Officers.*—In 1887-88, 98 cases were brought up to be compounded, of which 19 were dismissed, and compensation accepted in 79 cases for Rs. 1,083. During 1888-89, 109 cases were compounded for Rs. 1,187.

FOREST FIRES.

20. *Fire conservancy season.*—The climatic conditions were on the whole favorable.

The heavy rains towards the end of January and beginning of February caused the forests to remain green for a considerable time. A few fires occurred in April. These were rendered the more dangerous owing to the strong westerly winds which were prevailing then. On the heat increasing the forests rapidly dried up, and until the rains set in they remained in a highly inflammable state. Great anxiety was felt, but fortunately few serious fires occurred except in the Bahraich and Pilibhít Divisions. The tension was relieved by an early monsoon which commenced copiously on the night of the 9th of June.

The following statement shows the result of fire conservancy operations from 1st July, 1888, to the 30th June, 1889 :—

Divisions.	Area attempted to be protected.	Failures.	Actually protected.	Cost.	Cost per acre.	Remarks.
	Acres.	Acres.	Acres.	Rs.	Rs.	
Pilibhít ...	43,778	20,372	23,406	1,807	7·92	The ratio of cost per acre varies in proportion to the difficulties encountered in fire conservancy, the cost being higher in forests where there is more grass.
Bhira ...	38,594	923	37,671	1,804	6·97	
Kheri ...	71,880	33	71,847	3,703	9·89	
Bahraich ...	157,760	19,510	138,250	2,491	3·58	
Gonda ...	99,137	8,848	90,289	224	0·43	
Gorakhpur ...	76,770	1,020	75,750	1,496	3·74	
Total, 1888-89 ...	487,919	50,706	437,213	11,525	4·49	
Total, 1887-88 ...	487,819	36,242	451,577	13,719	5·39	
Difference ...	+100	+14,464	—14,364	—2,194	—0·90	

As directed in Local Government No. $\frac{741F.}{864-2}$ of 19th November, 1888, the results of the grass lease in connection with protection from fire is given here.

The sales of grass on the lands given to the Bengal and North-West Railway passing through fire protected areas amounted to—

	Rs.	a.	p.
In the Gonda district	72	0	0
„ Gorakhpur district	210	0	0
Total ...	282	0	0

Government had to pay—

	Rs.	a.	p.			
Bengal and North-West Railway in Gonda ...	51	0	0			
„ „ Gorakhpur ...	143	0	0	194	0	0
Profit realized ...				88	0	0

As the land alongside the railway was originally forest land, and was afterwards given to the Railway Company free, it seems rather anomalous that the Railway Company should now charge the Forest Department Rs. 282 rent on account of the grass collected.

Considering the value of the land made over, I am of opinion the State would be justified in collecting the grass free of charge, the collection being necessary to prevent the forests from being fired by sparks from the engines.

21. *Forest Fires, divisional (a).*—In Pilibhít 9 fires occurred accounting for 20,372 acres out of an area of 43,778 attempted.

2 fires. Originated from zamíndári forests.

2 „ Carelessness of subordinates while burning fire traces.

1 fire. Caused by baib cutters.

1 „ Negligent act on the part of one of the zamíndárs of Madho Tanda, who sent up fire balloons a mile from the forest on a hot night in May with a strong wind blowing on to the closed block. The zamíndár was prosecuted, but the case was dismissed by a Native Magistrate of Pilibhít.

3 fires. Were cases of incendiarism, sources not traced.

9 „ These fires occurred when the Divisional Officer was ensuring the safety of 38,594 acres of more valuable forest in the Bhira Sub-division.

The above area attempted does not include the areas *attempted without special means* of what are termed the open forests of the Pilibhít Division. By Local Government Resolution No. $\frac{726F.}{481\text{-}X\text{-}42}$ of 14th November, 1888, firing was prohibited in the restricted areas of pargana Puranpur, and by Local Government Resolution No. $\frac{428F.}{481\text{-}32}$ of 23rd July, 1888, a like measure was ordered for the open forests of pargana Pilibhít. In this pargana, where it has been decreed by the Forest Settlement Officer that the forests are the exclusive property of Government, no difficulty was experienced and the open forests were not burnt.

The people of this pargana have to come to us for their requirements on payment.

In pargana Puranpur the people are, under the instigation of their zamíndárs, quite out of hand, and the time of the regular protective establishment has been fully taken up in extinguishing fires, some of the compartments having been fired three or four times. This is not as it should be. From the above will be seen the necessity of rescinding the title to the share in the produce of the forests, the proprietary right to which the Forest Settlement Officer states Government possesses. The people have not the excuse of ignorance, for the District Forest Officer has taken pains to expound the wishes of Government in the above matter, and I am strongly of opinion that any delay or leniency would only tend to weaken the authority of Government.

(*b*) In Bhira six fires occurred, burning 923 acres, 340 acres of high coppice forest, and 593 acres of scrub jungle and open grass glades.

(*c*) In the Kheri Division 33 acres were burnt in the sissu plantation, which is partly natural and partly artificial.

(*d*) *Bahraich Division.*—There were two fires in this division : one in the Motipur Range, Nishhangara block, where 19,200 acres were burnt, but owing to the density of the forest the damage was not great, there being very little grass.

The other fire was in the Chakia-Charda Range in the Chakia Forest : 219 acres were destroyed. Both these fires were intentional it is feared. Some Ahírs were apprehended in connection with the Nishangara fire and sentenced, one man to three months and two men each to one month's imprisonment.

(*e*) In the Gonda Division seven fires occurred. Two of these were large and five small fires ; 5,249 acres of the Monawar block were burnt. This fire came from the private forests of Babu Guarcharan Lal, who did not give notice of burning his forests as directed by the Deputy Commissioner of Gonda.

The other large fire occurred in Block No. 3 of the main forest and burnt 2,986 acres; this fire came from the Nepal forests, notwithstanding the representation made to the Nepal Darbar by the Government of India in conformity with paragraph 10 of Local Government review of the Forest Annual Reports, 1887-88.

The lessor fires—

Block No. 2,	277 acres.	Accidentally burnt by mahua fruit collectors.
Shambhunagar,	35 „	Sparks from engine.
Ramgarh,	90 „	Ditto ditto.
Jankinagar,	211 „	Wilful ; source not traced.

(*f*) In the Gorakhpur Division, three fires occurred—

In the Sonari Forest	480 acres.
In the West Lehra Forest, 2 fires	540 „
Total ...	1,020

The Sonari fire was the act of an incendiary.

In West Lehra a fire burnt 40 acres, and was caused by sparks from the engine of a mixed train that runs in the heat of the day.

The second fire in West Lehra, 500 acres, was wilfully done.

As far as can be discovered from the divisional reports no areas escaped "without special means being adopted," except in pargana Pilibhít of the Pilibhít Division.

22. The orders issued by the Local Government in conformity with paragraph 10 of the review of the Forests Reports of 1887-88, has already been of much service in many instances in the prevention of fires.

GRAZING AND FENCING.

23. *Grazing.*—The statement below shows the number of cattle grazed, and the areas closed against, and open to, grazing :—

Divisions.	Total area of reserved forests in acres.	Area actually closed against grazing.	Area open to grazing.	Number of cattle grazed.	Remarks.
Pilibhít	97,045	43,778	53,267	21,911	2·4 acres a head.
Bhira	96,651	38,082	58,569	13,086	4·47 „ „
Kheri	1,68,296	70,880	97,416	69,550	1·40 „ „
Bahraich	2,08,021	68,480	1,39,541	1,36,577	1·02 „ „
Gonda	90,137	45,228	53,909	49,286	1·09 „ „
Gorakhpur ...	1,00,556	76,770	23,786	40,344	0·59 „ „
Total ...	7,69,706	3,43,218	4,26,488	3,30,754	1·28 „ „

Grazing has increased slightly in the Bahraich and Gonda Divisions.

(*a*) The time has arrived when the number of cattle to be grazed ought to be limited, in ordinary years, as in pargana Pilibhít of the Pilibhít Division. And it is a matter for consideration whether the nominal fees for grazing should not be raised to an equitable rate.

(*b*) Free grazing still continues in pargana Puranpur, under the preliminary Forest Settlement, but the people as yet fail to understand that Government has any demand on their services under section 78 of Act VII of 1878, or that in default of rendering assistance to Government, lawfully demanded, that they lay themselves open to have their title to forest produce confiscated, at the pleasure of Government, under section 80. The forests of Pilibhít are exceedingly difficult to administer owing to the turbulent disposition of the people. I think the following quotation applies in a certain measure to the present state of the Puranpur Forest. M. Elie Berthet referring to the forests of Fontainbleau in 1789, just 100 years ago, says :—"* * * la foret avait souffert d' effroyables dévastations * * * les bois étaient au pillage et les gens des alentours ne se gênaient pas pour ravager taillis et futaies * * * *et les rares gardes forestiers restés à leur poste manquaient de force et d' autorite afin de mettre un terme a ses desordres.*"

(*c*) In the Bhinga Range of the Bahraich Division wild cattle abound, and it is feared they do much damage by coming out of the forest at night in large herds and browsing on the young crops. The suggestion of the Deputy Commissioner of Bahraich is worthy of note, that strong fenced enclosures should be erected and these mischievous animals impounded by organized drives, and when caught sold by auction.

(*d*) A harmful custom prevails in this forest. Bhinga cattle speculators let their animals loose ; they become semi-wild and mix with the wild cattle. For this class of animals the Deputy Commissioner further suggests that when caught with the wild ones, as above described, the owners should be punished when they come forward to claim their cattle, in order to put an effectual stop to this mischievous practice.

24. *Fencing.*—In Bhira, near Gola, a barbed wire fence is under trial in the Barauncha closed forest in the vicinity of the railway line to prevent cattle trespass.

A like measure will be necessary in the Bhinga Range of the Bahraich Division, as it has been found almost impossible to exclude cattle from the closed area.

The Deputy Commissioner of Bahraich has written a very able letter relating to this subject of cattle trespass, which will be submitted separately to Government.

25. *Good results of protecting grass (a).*—In the Gorakhpur district, thatching grass has a high market value. The grass was carefully protected in the closed forests and yielded the large sum of Rs. 14,177-9-9, against an expenditure on establishment of Rs. 270-12-9..

(b) The Divisional Forest Officer of Gorakhpur reports that the zamíndárs are now fully alive to the benefits to be derived from the exclusion of cattle from their waste lands by strictly preserving them for the production of thatching grass, which realizes from 6 to 7 rupees per acre, and drive their cattle to graze in the Government reserved forests. This should be discouraged, by raising the Government grazing rates to a level more in keeping with the present value of cattle grazing in other parts, as suggested in a former paragraph (23 *a*).

5. NATURAL REPRODUCTION.

26. *Natural reproduction.*—Natural reproduction in the closed forests is very good, except in certain parts of Bahraich and Gonda, and the beneficial effects of protection from fire is everywhere most marked in the improvement of the soil, the existing young growth, and the appearance of numerous seedlings.

6. ARTIFICIAL REPRODUCTION.

27. *Artificial reproduction (a) Plantations.*—One hundred acres have been added to the sissu plantations in the Gorakhpur Division, making a total area of 2,797 acres

throughout the circle, of which 2,723 acres are in Gorakhpur. These are doing well with the exception of the Madhaulia plantation.

(b) District Arboriculture.—The Forest Officer of Gorakhpur reports having planted 42 miles on both sides of the Nichlaul road.

7. THINNINGS AND CLIMBER CUTTING.

28. (i) *Thinning and Climber Cutting.*—Thinnings took place in the Pilibhít, Gonda and Gorakhpur Divisions, the details of which will be found in chapter IV, under Departmental Operations.

(ii) *Climber Cutting* (*a*) *Bhira.*—Climber cutting was continued in the Bhira Division, Madha Block, in compartments No. 5, 10, 10 b., and in ⅓rd of compartment No. 11 and ¼th of compartment No. 15, over on area of 4,670 acres, at a cost of Rs. 166-10-0 = 6·8 pies per acre.

(b) Kheri.—Climbers were cut in the Dudua Block, sub-compartments No. 27*a*, 32*a*, 33*d* and 33*e*, over the area of Improvement Fellings = 403·97 acres. The work was done in the spare time of the coolies employed in marking trees. The cost was included in the improvement fellings and could not be shown separately.

(c) In *Gonda* this operation extended over 2,000 acres and cost Rs. 31-3-6, or 2·9 pies per acre, from the above it may be assumed that there were not many climbers.

(d) In *Gorakhpur* climbers were cut over the 365 acres of the Ramghar Forest in which the thinning operations took place, and the cost is amalgamated with that operation.

8. EXPERIMENTS.

29. The usual measurements of trees to ascertain the growth of sál were made in the Pilibhít, Bhira and Kheri Forests.

9. COMMUNICATIONS AND BUILDINGS.

30. *Roads and Bridges.*—During the year 147 miles and 3½ furlongs of new roads were made. For detail see below :—

	Mile.	Furlong.
Bhira	26	0
Bahraich	0	2
Gonda	32	2½
Gorakhpur	8	1

Half the cost of the two roads (Rs. 1,816) made in the Gonda Division, aggregating 28 miles 2 furlongs, was borne by the Balrampur Estate.

(*a*) *Bridges.*—Seven new wooden bridges were made in the Bahraich Forests. All old bridges were repaired throughout the circle where necessary.

(*b*) The only revenue producing bridge is the one over the Sarda at Srinagar, the revenue and expenditure of which is given below for the past two years :—

		Rs.
1887-88 ...	Revenue	4,768
„ ...	Expenditure	3,210
„ ...	Profit	1,558
1888-89 ...	Revenue	3,942
„ ...	Expenditure	4,236
„ ...	Loss	294

The falling off in the revenue is due to less grain export from Nepal during 1888-89.

The above figures do not show the full money value to Government of this bridge-of-boats. Thousands of cubic feet of Government timber pass over annually without paying toll.

31. *Buildings (a).*—Besides the annual and special repairs of rest-houses two sets of out-offices were erected in the Bhira Sub-division, and a large shed for the storage of "baib" grass, for the Upper India Paper Mills, 70 feet × 40 feet.

(*b*) *Gonda Division.*—The 2nd class rest-house and its out-houses at Nandmahra Nála have been completed within the year.

(*c*) In the Gorakhpur Division the offices at Chaumukha have been completed at a cost of Rs. 949.

(*d*) Expenditure on buildings in the circle—

1887-88	...	Rs. 10,618
1888-89	...	„ 12,315

A large portion of this, Rs. 12,315, is represented by materials collected for houses in course of construction, *viz.* :—

In Kheri	...	1	2nd class rest-house.
„ Bahraich	...	1	2nd „ „
„ Gonda	...	1	1st „ „
„ „	...	1	2nd „ „
„ Gorakhpur	...	1	1st „ „

32. *Wells.*—A new well, 5 feet (inside) diameter with a cylinder 44 feet, was finished for the sum of Rs. 369-9-6 at the junction of the Lucknow, Sítapur, Seramau and Pilibhít Railway, and the Madha Tál and Morehna Forest road in the Bhira Sub-division. No more new wells were finished in the year.

The following wells are in course of construction :—

Kheri Division	... 8
Bahraich „	... 2
Gonda „	... 2
Gorakhpur „	... 1
	13

Cost of wells—

1887-88.	...	Rs. 7,567
1888-89.	...	„ 7,072

33. *Rivers* (*a*).—In Kheri the Soheli was cleared, as usual, of snags, from Salukapur to Shitaba, 40 miles, at a cost of Rs. 360 to facilitate rafting operations.

(*b*) In the Gorakhpur district the Pias and Rohin rivers were cleared in a like manner.

(*c*) By the orders of the Local Government No. $\frac{467F.}{514\text{-}38}$ of 31st August, 1888, the drift operations of the Gandak and its tributaries have been worked by the Forest Department throughout the year, and the main features of the operations may be briefly stated thus :—

Financial results of the above for the year—

	Rs.	a.	p.
Revenue	6,301	13	2
Expenditure	4,922	6	0
Net surplus ...	1,379	7	2
Add estimated value of timber not disposed of at end of year ...	4,360	9	0
	5,740	0	2
Deduct value of timber lost by the sudden cutting away of the river bank	2,481	9	0
Total ...	3,258	7	2

Great difficulty has been experienced in the working of the drift operations, owing at one time to the active interference, and now to the passive obstruction, of the police and all who benefited by the former régime, and much of the time of the drift establishment has been taken up this year in prosecuting a large dakaiti case. Owing to the

assistance rendered by the Collector of Gorakhpur and to the active measures adopted by the Conservator of Bengal on his side of the river, much has been done to improve the working of the drift operations ; and Mr. Campbell, the Divisional Officer, still maintains that when this work is thoroughly organized the drift should, with an expenditure of Rs. 40,000, give a revenue of Rs. 1,00,000. The services of another officer would be necessary to perfect these arrangements. Since the control of the drift operations has been under the Forest Department the Nepalese authorities have discovered most extensive frauds and robberies. All the contractors have had their timber forfeited, and a number of Nepalese underlings have been imprisoned, and the malpractices that have been going on for years have been to a certain extent stopped. The Nepalese subordinates in charge of the ghâts from Tirbani to Tehri Ghât continue to give much trouble ; they are in the habit of taking drift timber from the British side of the river. It might therefore be advisable to have the river boundary properly defined. As the interests of Nepal are equal with the British Government in this case, it will be to the advantage of both that there should be some proper understanding, specially on the part of the local Nepalese subordinates, who at present do not appear to understand how far their jurisdiction extends.

(*d*) The income from the collection of drift timber from the Sarda and Chauka rivers was Rs. 3,250, against Rs. 2,000 provided for in the budget, and the expenditure, including cost of temporary establishments, Rs. 1,618-14-1, or Rs. 618-14-1 more than the budget grant. Last year the income from this source was Rs. 4,714. The decrease of Rs. 1,464 in this year's receipt is due to the floods not being so great as last year and consequently less timber was brought down.

CHAPTER IV.

YIELD AND WORKING (CIRCLE).

34. The details of the yield and outturn will be found in a condensed form in Appendices I and II and in forms Nos. 54 and 55. A summary of the main facts of the year, as ordered in Local Government No. $\frac{634}{845\text{-}4}$ of 4th October, 1888, will be found in Appendix VII.

DEPARTMENTAL OPERATIONS.

35. *Selection fellings of regular working plans.*—The only regular selection fellings took place in the Kheri Division in compartments 50, 57 and 66 as follows :—

Compartment No.	Sál.	Asaina.
50	2,153	8
57	140	...
66	207	...
Total ...	2,500	8

The Divisional Officer reports the above "as yielding 2,647 logs and 1,821 pieces containing 2,12,448 cubic feet of timber. Of these logs and those of former season's fellings 3,590 logs were carted to depôt, 5,101 logs were rafted from depôt to Shitaba, and 4,926 logs were rafted from Shitaba to Bahramghât."

IMPROVEMENT FELLINGS.

36. *Kheri Division.*—During the year under review the improvement fellings were recommenced systematically, and conducted over an area of 403·97 acres, yielding scantlings and sleepers equal to 38,831 cubic feet, giving an average yield of 96 cubic feet per acre (75 cubic feet per acre being the basis adopted for calculation of outturn). The higher result obtained may be safely attributed to the care taken by Mr. Montague Hill (who conducted the operation) to utilize the whole of the sound timber, there being little or no waste.

37. *Thinnings and strip fellings* (*a*).—In Pilibhît 39 stacks of 500 cubic feet each equal to 19,500 cubic feet of fuel and 2,022 poles, were cut in the Bankati Forest at a cost of Rs. 736. This work was undertaken chiefly for the supply of 16,000

maunds of fuel to the Pilibhít State Railway as ordered by Local Government No. 1192 of 10th October, 1888, (Railways). Of these 39 stacks, 32 (or 16,000 cubic feet) and 36 stacks (or 18,000 cubic feet) of last year's fuel were carted to Pilibhít at a cost of Rs. 364. A further sum of Rs. 190 was spent on the construction of a fuel depôt at Pilibhít, and with other miscellaneous expenditure making a total cost of Rs. 1,290 on the whole operation, which consisted partly of thinnings and partly of strip fellings. The cost of the work was greatly enhanced by the thorough manner in which the operation was carried out. All the gnarled surface roots of the scrub sál were cut away to enable healthy coppice shoots to come up and obtain their nourishment direct from the root and not through a mass of dead and dying tissue; by this means shoots 7½ feet in height have been obtained in five months, January to June, 1889. A plan of the operations is attached, see Appendix VIII.

(*b*) In *Bhíra* 234½ stacks of fuel of 429 cubic feet (429 cubic feet equal the contents of one metre-guage wagon) were cut at a cost of Rs. 760. The outturn of this year's strip fellings was 2,773 poles, and 1,10,139 cubic feet of firewood and charcoal. Some 377 stacks (234½ of this year and 143 of the last year) were carted to the railway line and sent to Lucknow. A plan of this work is submitted as Appendix IX to this report.

The explanation with regard to expenditure as given above for the Pilibhít Division equally applies here.

(*c*) *Bahraich Division.*—The area operated on in the Charda coppice sál forest on the "strip system" was about 72 acres, of which 60 acres were tree forest and 12 acres scrub jungle.

The cost was Rs. 335-1-7, or about Rs. 5-8-0 per acre. The following is the detail of trees counted on 42·53 acres of forest operated on :—

Description.	Class I.		Class II.		Class III.		Class IV.		Class V.	
	Total.	Per acre.	Total.	Per acre.	Total.	Per acre.	Total.	Per acre.	Total.	Per acre.
Sál sound ...	10	0·23	34	0·79	1,755	41·26	4,056	95·37	4,553	107·05
„ unsound ...	151	3·55	36	0·85	290	6·82	653	15·35	1,469	34·54
Miscellaneous sound ...	24	0·56	35	0·82	446	10·55	759	17·85	1,532	36·02
„ unsound ...	31	0·73	59	1·39	285	6·70	417	9·80	779	18·32

The total number of trees of all descriptions was 408·53 per acre, and of these 305·83 were sál poles and 102·75 miscellaneous trees, the percentage of sál being 74·85 and of miscellaneous 25·15.

The result of this enumeration varies slightly from that of last year, which gave 72·44 for sál and 27·56 for miscellaneous. The Divisional Officer estimates from the above and former enumerations that 75 per cent. of the Charda Forest consists of high sál coppice.

(*d*) *Gonda Division.*—Thinnings were continued in the Ramgarh Block of the Nawabganj Range. From the 200 acres worked over, 99,155 sál saplings and 33,806 of other species were felled. This material was converted into 272 stacks of 400 cubic feet each, and 228 poles suitable for building purposes. Besides the above 156 mahua trees girdled last year were felled. This yielded 126 pieces of timber and 56 stacks of fuel.

Disposal.—Of the above 300 stacks were sold *in situ* for Rs. 5 each and 28 stacks were sold to the Gonda Jail.

(*e*) *Gorakhpur Division.*—In West Lehra 165 acres and in Bhari Baisi 200 were thinned, and thinning operations took place also in Ramgarh and Tilkonia, the outturn of which was 1,04,306 cubic feet.

38. *Outturn of timber, firewood and other minor forest produce* (*a*).—This is shown in Forms 54 and 55. An abstract is given below in cubic feet as compared with the previous year :—

Description of produce.	Selection fellings.		Thinnings (and improvement fellings.).		Clearances.		Total.	
	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.
Timber	3,46,658	2,59,660	23,208	57,257	1,85,132	8,58,560	5,54,998	11,75,473
Poles and saplings ...	...	...	11,887	13,506	26,11,035	12,01,287	26,22,922	12,14,793
Drift	...	...	...	...	63,070	71,995	63,070	71,995
Total, timber ...	3,46,658	2,59,660	35,095	70,763	28,59,237	21,31,842	32,40,990	24,62,261
Firewood and charcoal ...	...	...	2,77,859	3,73,738	22,95,910	12,92,942	25,73,769	16,66,680
Total timber, firewood and charcoal.	3,46,658	2,59,660	3,12,954	4,44,501	51,55,147	34,24,784	58,14,759	41,28,945

From the above table it will be seen that in 1887-88 the outturn in cubic feet of timber was 86,998 less than in 1888-89. This is due to fewer trees being felled in the latter year in the Kheri selection felling.

	1887-88.	1888-89.
Sál	3,433	2,500
Asaina	128	8
	3,611	2,508

The increase under thinning and improvement felling is due to more trees having been felled and on account of the sale of green standing trees, the outturn in cubic feet from the above being nearly double during 1888-89 as compared with 1887-88.

(*b*) The removal of the above outturn by different agencies is given in the following table :—

Description of produce.	Government agency.		Purchasers.		Right-holders and free grantees.		Total.	
	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.
Timber cubic feet,	3,55,944	2,81,748	1,46,886	2,17,909	52,168	15,909	5,54,998	5,15,566
Poles and saplings ,,	13,566	4,730	2,60,627	3,08,042	23,48,729	15,62,125	26,22,922	18,74,897
Drift timber ,,	42,702	71,314	20,368	488	...	...	63,070	71,802
Total, timber ,,	4,12,212	3,57,792	4,27,881	5,26,439	3,00,897	15,78,034	33,40,990	24,62,265
Firewood and charcoal ,,	2,86,039	2,76,954	11,91,487	8,20,634	10,96,243	5,69,092	25,73,769	16,66,680
Total, timber, firewood and charcoal.	6,98,251	6,34,746	16,19,368	13,47,073	34,97,140	21,47,126	58,14,759	41,28,945

39. *Clearances.*—There is a decrease of 7,27,395 cubic feet under this head and 10,02,968 cubic feet of firewood. This is owing to less demand in the Pilibhít and Kheri districts and to a better estimate of the produce taken out of the forests by the residents of pargana Puranpur, Pilibhít Division. The privileged villagers have taken out less house building materials.

40. The following statement gives the minor forest produce removed and value of grazing :—

Description.	Government agency.				Purchasers.				Right-holders and free grantees.				Total.			
	1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Bamboos ...	...	...	..	...	...	...	...	186	..	...	...	...	..	...	..	186
Minor produce ...	...	6,244	..	11,274	..	47,259	..	39,488	.	12,200	..	12,472	..	65,703	.	63,234
Grazing ...	..	...	.	...	..	42,895	.	46,181	.	24,004	...	2,720	..	66,899	.	48,901
Total ...	...	6,244		11,274	..	90,154	.	85,855		36,204	.	15,192	..	1,32,602	.	1,12,321

The increase under Government agency is due to sales of baib grass supplied in contract to the Titahgarh and Bally Paper Mills.

The falling off under purchasers is accounted for by no catechu being manufactnred in the Bahraich Forests and less in the Gonda Division.

41. *Total yield of timber, Circle.*—The total yield of timber is given in Appendix I, an abstract of which is given below :—

Description.	1887-88.		1888-89.		Difference.	
	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.
Selection fellings and fellings of other mature trees.	5,568	3,64,386	3,317	2,59,660	−2,251	−1,04,726
Thinnings	1,30,594	35,095	2,86,329	70,763	+1,55,735	+65,668
Clearances	13,49,738	27,78,439	9,16,375	20,60,040	−4,33,363	−7,18,399
Total, timber ...	14,85,900	31,77,920	12,06,021	23,90,463	−2,79,879	−7,87,457
Add drift timber ...	...	63,070	...	71,802	...	+8,732
Add firewood	...	25,73,769	...	16,66,680	...	−9,07,089
GRAND TOTAL ...	14,85,900	58,14,759	12,06,021	4,1,28,945	−2,79,879	−16,85,814

42. *Bahramghát Depôt.*—The following table gives the comparative results of receipts and execution of indents in cubic feet :—

Year.	Balance of indents unexecuted at commencement of the year.	Indents received during the year.	Total.	Indents cancelled.	Balance.	Indents executed during the year.	Balance unexecuted.
1887-88 ...	3,879	22,080	25,959	22	25,937	20.426	5,511
1888-89 ...	5,511	44,553	50,064	826	49,238	42,993	6,245
Difference ...	+1,632	+22,473	+24,105	+804	+23,301	+22,567	+734

The saw mills at Bahramghát have been busier by 22,567 cubic feet in outturn; larger orders were received from the Public Works, Buildings and Irrigation Departments and from railways. Rejected timber off-cuts, scantlings, hollow and crooked logs were sold by periodical auction sales; the prices realized were from 6 to 14 annas a cubic foot, giving an average of 10 annas per cubic foot.

During the year 4,926 logs received from the Shitaba Depôt were landed by steam power at a cost of Rs. 181-15-6, or an average of 6½ pies each.

43. *Stock.* (*a*) *Timber.*—The value of timber and fuel in stock at commencement and close of the year is given in the following table, abstracted from Forms Nos. 57 and 57A :—

Description.	Balance at commencement of the year.		Balance at close of the year.		Difference in value.	
	Number or quantity.	Value.	Number or quantity.	Value.	In favour of the year.	Against the year.
		Rs.		Rs.		
Timber, cubic feet ...	14,02,280	4,04,802	13,00,495	4,75,461		
Firewood, maunds ...	1,59,170	26,225	65,772	9,905		
Minor produce ...	1,953	500	2,218	1,428		
Stock as per Form No. 57B ...	64,420	1,88,336	64,480	1,93,528		
Total ...	...	6,19,863	...	6,80,322	60,459	...

The value of timber in stock has increased owing to the inferior timber being disposed of during the year, although the cubic contents are less than shown in 1887-88; the value is higher in 1888-89. The value of firewood has decreased, owing to the accumulated stock in hand being worked off by better arrangements for the sale at the Lucknow and Bahramghát Depôts. The large stock of off-cuts still on hand is chiefly in the forest depôts of Kheri and Bahraich, for which there is no local demand, and unless we can arrange for cheap carriage we cannot dispose of these. The large stock of off-cuts and half wroughts at Bahramghát has been sold by auction. Some selected off-cuts have been reserved with a view to obtaining minor building materials from them for which better prices may be realized.

(*b*) *Live Stock.*—A pair of bullocks was purchased for the Kheri Division; one of these was unfortunately killed by a tiger.

(*c*) *Dead Stock* (*Tools and Plant*).—The value of buildings and furniture has been increased. One second class rest-house was built in the Gonda Division, and offices in the Gorakhpur and Bhira Divisions.

44. *Removal of produce by purchasers.*—The removal of produce of all kinds is given in Forms Nos. 54 and 55, a synopsis of which is given below as compared with 1887-88 :—

	1887-88.		1888-89.	
	Quantity, cubic feet.	Value.	Quantity, cubic feet.	Value.
		Rs.		Rs.
Timber	1,46,886	18,048	2,17,909	96,125
Poles and saplings	2,60,627	48,146	3,08,042	
Drift timber	20,368	6,008	488	
Firewood and charcoal	11,91,487	9,870	2,80,634	10,143
Minor produce, including bamboos ...	...	47,259	...	39,674
Grazing	...	42,895	..	46,181
Total ...	16,19,368	1,72,216	18,47,073	1,92,123

45. Divisional detail of timber, firewood, minor produce, and grazing dues are given in the following table :—

Divisions.	1887-88.										1888-89.									
	Timber.		Firewood and charcoal.		Minor produce.		Grazing.		Total.		Timber.		Firewood and charcoal.		Minor produce.		Grazing.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Rs		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Pilibhít	32,290	1,908	1,52,385	1,333	...	2,211	...	1,004	1,84,675	6,456	9,117	1,330	56,092	3,121	...	1,578	...	1,242	65,209	7,271
Bhira	16,382	363	2,24,531	420	...	777	...	2,289	2,40,913	3,849	14,805	444	1,75,360	497	...	162	...	1,925	1,90,165	3,028
Kheri	20,356	3,892	46,444	372	...	10,311	...	10,773	66,800	25,348	45,409	12,293	27,361	342	...	10,317	...	10,989	72,770	33,931
Bahramghát	17,935	4,714	...	...	...	...	...	...	17,935	4,714	...	...	...	...	...	...	...	...	...	...
Bahraich	2,21,840	46,412	2,70,629	1,927	...	8,856	...	13,943	4,92,469	71,138	3,75,057	71,222	56,054	1,371	...	5,742	...	15,912	43,111	94,247
Gonda	96,309	20,293	4,47,433	1,656	...	7,879	...	6,484	5,43,742	26,312	56,433	8,244	2,87,632	2,162	...	6,386	...	7,092	3,44,065	23,884
Gorakhpur	22,769	4,610	50,065	4,162	...	17,225	...	8,482	72,834	34,399	25,618	2,592	2,18,135	2,650	...	15,489	...	9,021	2,43,753	20,752
Total ...	4,27,881	72,192	11,91,487	9,870	...	47,259	...	42,895	16,19,368	1,72,216	5,26,439	96,125	8,20,634	10,143	...	39,674	...	46,181	13,47,073	1,92,123

46. *Free grants of forest produce.*—The detail of free grants of forest produce is given in Forms Nos. 54 and 55 and Appendix IV, an abstract of which is given below :—

Description.	1887-88.		1888-89.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber	52,168	85,063	15,909	87,274
Poles and saplings	23,48,729		15,62,125	
Firewood and charcoal	10,96,243	5,886	5,69,092	5,024
Minor produce	...	11,200	...	12,472
Grazing dues	...	24,400	...	2,720
Total ...	34,97,140	1,26,549	21,47,126	1,07,490

There is a vast difference shown in the current year under free grazing. The estimate framed for pargana Puranpur in 1886-87 was excessive, being based on the cattle owned by residents of Puranpur. In the past year grazing was allowed on free permits, and we have by this means ascertained the actual number of cattle put to graze in the Government forests.

47. *Rights and privileges.*—A note on this subject for the re-consideration of the principle of these free grants and the "3 mile privileges" is about to be submitted to the Local Government separately.

48. *Protected and district forests.*—There are none included in the administrative charge of the Oudh Circle.

49. *Catechu.*—The amount realized from the manufacture of catechu was Rs. 8,407, against Rs. 8,877-12-0 of the previous years. There has been a decrease under this head of late years owing to *Acacia catechu* trees suitable for the manufacture of catechu having become scarcer. In some parts of the division, however, the new growth is in an advanced state and will soon be available for manufacture.

In Bahraich there was no demand, and in Gonda the manufacture was on a limited scale, a great many manufacturers having gone over to the Nepal forests this season, owing to the greater abundance of trees there.

50. *Imports and exports.*—Considerably less timber was imported from Nepal.

51. *Total yield in produce.*—The total yield in produce is given in Appendix II. The following is an abstract of it :—

Description.	1887-88.		1888-89.		Difference. More.		Difference. Less.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.		Rs.		Rs.
Timber cubic feet ...	32,40,990	5,05,063	24,62,265	4,10,377	...	...	7,78,725	94,686
Firewood and charcoal ...	25,73,769	40,000	16,66,680	36,000	...	...	9,07,089	4,000
Bamboos scores ...	...	...	132	186	132	186	...	...
Minor produce	...	65,703	...	63,234	...	...	...	2,469
Grazing dues	...	66,899	...	48,901	...	...	...	17,998
Total ...	58,14,759	6,77,665	41,29,077	5,58,698	...	...	16,85,682	1,18,967

52. *Explanations of the above.*—The differences (1887-88 as compared with 1888-89) have already been given in previous paragraphs of this chapter.

CHAPTER V.

FINANCIAL RESULTS.

53. *Circle.*—The financial results of the year, as compared with those of four previous years, is given below :—

	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts ...	7,77,021	6,81.712	6,58,675	4,29,870	5,39,654	30,86,932
Expenditure ...	5,50,758	5,03,197	3,75,120	3,14,439	3,16,879	20,60,393
Surplus	2,26,263	1,78,515	2,83,555	1,15,431	2,22,775	10,26,539

From the above statement it will be seen that while the expenditure of the current exceeds that of the past year by Rs. 2,440 only, the revenue is greater by Rs. 1,09,784. This is due chiefly to increased sales at Bahramghát R. I. a. and to the sales of standing trees, &c., in the Bahraich Division, R. II. a.

54. Receipts and expenditure under the three main heads of (I) *Departmental Operations*, (II) *Other Revenue*, (III) *Formation protection and improvement of forests*, are given in the following statement.

Year.	I. Departmental timber, &c., operations.			II. Other revenue and expenditure.			III. Formation, protection, and improvement of forests.	Net surplus.
	Receipts.	Charges.	Surplus.	Receipts.	Charges.	Surplus.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1887-88 ...	2,37,965	1,64,309	73,656	1,91,905	71,801	1,20,104	78,329	1,15,431
1888-89 ...	3,25,267	1,49,040	1,76,227	2,14,387	78,346	1,36,041	89,493	2,22,775
Difference,	+87,302	−15,269	+1,02,571	+22,482	+6,545	+15,937	+11,164	+1,07,344

The prominent features of the above figures are the increase in revenue under I and II of Rs. 1,09,784 over 1887-88, and the expenditure has been less under I and II by Rs. 8,724, as compared with the previous year. The expenditure on the formation and improvement of forests has increased by Rs. 11,164. This is as it should be.

54. Receipts under the different budget heads are given in the usual manner below :—

Year.	R. I. Timber and other produce removed from the forests by Government agency.	R. II. Timber and other produce removed from the forests by consumers and purchasers.	R. III. Confiscated drift and waif wood.	R. IV. Forests not managed by Government.	R. V. Miscellaneous.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1887-88 ...	2,32,733	1,75,396	10,709	...	11,032	4,29,870
1888-89 ...	3,21,283	1,97,409	10,588	...	10,374	5,39,654
Difference ...	+88,550	+22,013	−121	...	−658	+1,09,784

The increase under R. I. is due, as stated before, to the sale of timber by periodical auctions at Bahramghát and to the sale of firewood, in stock from past year, at the Bahramghát and Lucknow Depôts, and to the sale of biab grass to paper manufac-

turers. The increase under R. II. is due to the sale of standing timber and poles, &c., from the strip fellings of the last two years in the Bahraich Division. The demand was brisker owing to less timber, &c., exported from Nepal in the current year.

55. The receipts and expenditure of divisions is shown :—

Division.	Receipts.		Increase or decrease during the year.	Expenditure A and B.		Increase or decrease during the year.
	1887-88.	1888-89.				
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Direction	...	...	...	19,592	20,037	+6,445
Pilibhít	7,691	7,559	−132	28,963	23,089	−5,874
Bhira	11,435	15,197	+3,762	13,251	17,698	+4,447
Kheri...	62,754	62,499	−255	1,35,479	7,79,789	−7,822
Bahramghát	1,56,233	2,43,741	+87,508	25,393	31,220	
Bahraich	1,04,961	1,15,768	+70,807	43,635	32,201	−11,434
Gonda	27,711	35,079	+7,368	74,937	19,278	+4,841
Gorakhpur	59,085	59,811	+726	33,189	45,536	+12,347
Total ...	4,29,870	5,39,654	+1,09,784	3,14,439	3,16,879	+2,440

Explanatory note of the above.

The following is an outline of the difference in revenue and expenditure as compared with 1887-88 :—

In Direction charges the increase in expenditure was owing to the promotion of the Conservator and on account of Mr. Dansey's pay being charged to this Circle when on three months' privilege leave from the Central Provinces In Pilibhít the falling off in revenue is under minor forest produce. There has been a substantial decrease in expenditure due to the fact of the road system being complete : no new roads were made, no new buildings required, and less spent in fire conservancy owing to better arrangements.

In the *Bhira Division* (cis-Sarda) a higher revenue has been attained than in any previous year, attributable to the sale of firewood. The greater expenditure is on the strip fellings in the Barauncha closed forest, and to special repairs on certain roads.

In the *Kheri Division* (trans-Sarda) the falling off in revenue was due to less fuel and minor produce removed from the forests by consumers and purchasers, and the decrease in expenditure is due to no sleepers having been carted to market during 1888-89.

The increase in the revenue of the *Bahraich Division* has been accounted for in paragraphs 52 and 54. Less money was spent on strip fellings owing to the illness of the Divisional Officer and nearly all his subordinates, who suffered much from fever.

In the *Gonda Division* the increase in revenue was accounted for in paragraph 37. The increased expenditure is due to the collection of baib grass (paper material) and of firewood cut departmentally, also on buildings.

Gorakhpur Division.—The payment of Rs. 6,406 to the Survey Department accounts for more than half of the excess expenditure of Rs. 12,347, and the remainder to the cost of cutting poles, &c., for the residents of Bánsi in the Basti district, who were sufferers from the excessive floods of last rains, 1888.

In the Bahramghát Division the increased expenditure is due to sawing more timber for public departments.

To obtain a fairer idea of the revenue and expenditure of the Bahramghát Depôt and the Kheri Division, the figures must be amalgamated, because much of the revenue shown as pertaining to Bahramghát is the result of expenditure incurred in the Kheri Division ; therefore the expenditure of the Kheri Division and the revenue shown for the Bahramghát Depôt are disproportionate.

The following statement combines the two :—

	Revenue. Rs.	Expenditure. Rs.
Kheri	62,499	1,19,789
Bahraighát	2,43,741	32,031
	3,06,240	1,51,820
	1,51,820	
	1,54,420 Surplus.	

56. The expenditure of the circle under A.—Conservancy and Works is shown below for the past two years :—

Year.	I. Timber and other produce removed from the forests by Government agency.	II. Timber and other produce removed from the forests by consumers and purchasers.	III. Confiscated drift and waif wood.	IV. Revenue of forests not managed by Government.	V. Rent of leased forests.	VI. Live and dead stock.	VII. Communications and buildings.	VIII. Demarcation, improvement and extension of forests.	IX. Miscellaneous.	Total.
	Rs.	Rs.	Rs.			Rs.	Rs.	Rs.	Rs.	Rs.
1887-88 ...	1,40,692	13,608	3,582	...	...	7,036	23,232	22,207	3,562	2,13,919
1888-89 ...	1,22,559	13,768	5,614	...	...	6,560	29,882	28,895	4,016	2,11,295
Difference,	−18,133	+160	+2,032	...	...	−476	+6,650	+6,688	+454	−2,625

The explanation given in paragraph 55, under the table showing "Divisional Receipts and Expenditure," equally applies to the above figures.

B.—ESTABLISHMENTS.

(*b*) *Circle.*—The expenditure on B.—Establishment for 1887-88 and 1888-89 is shown in the following statement. :—

Year.	B I. Salaries.	B II. Travelling allowance.	B III. Contingencies.	Total.
	Rs.	Rs.	Rs.	Rs.
1887-88	81,438	13,452	5,629	1,00,519
1888-89	86,644	13,709	5,232	1,05,585
Difference	+5,206	+257	−397	+5,066

The increase under B I has been explained in paragraph 55.

The increase under B II is due to Forest Officers having remained in camp longer, and the decrease under "III—Contingencies" is chiefly under "F—Sundries" in the Direction, Bhira and Pilibhít Divisions.

57. *Cash profit of the year.*—

	Rs.
Receipts	5,39,654
Expenditure	3,16,879
Cash surplus	2,22,775

58. *Revenue outstandings.*—The outstandings due to the Circle on account of revenue amount to Rs. 11,534 (as against Rs. 12,077 of 1887-88). A portion of this is, however, irrecoverable.

59. *Outstandings on account of contractors and disbursers.*

	Contractors. Rs.	Disbursers. Rs.
Pilibhít	...	1,442
Bhira	...	3,464
Kheri	11,704	10,753
Bahraich	2,770	1,625
Gonda	...	4,391
Gorakhpur	2,600	7,419
Bahramghát...	634	188
Total ...	17,748	29,272

CHAPTER VI.

General.

Portable Tramways.

60. It was my intention to treat this subject in a separate note at some length, but, as ordered by the Inspector-General of Forests in his Demi-official Circular No. 6 of 2nd May last, I will briefly note here the present requirements of the Oudh Circle in the matter of tramways, portable and fixed. These are now very necessary for the proper *exploitation* of our more valuable forests of the Kheri and Bahraich Divisions.

The Kheri Division.—A fixed tramway is urgently required from the Mailani Railway Station of the Lucknow, Sitapur and Seramau Railway to the west bank of the Sarda (tapping the chief centre of the Bhira Forests) and thence to Duduaghát, a distance of about 27 miles. From Dudua a portable tramway will be necessary to the site of the main felling operations under the working plan in each year. This will obviate much of the past troubles of advances to cartmen, &c.

I am of opinion that the Bengal North-Western Railway will perceive that it will be to their advantage to make the above tramway, or at any rate the fixed portion of it, the Forest Department supplying sleepers free of cost along the line. With this object I am about to address the able Agent of the above Railway Company, Mr. J. Izat, who is fully alive to the interests of his Company. When the projected working of the Bhira and Kheri forests is in full train, we shall be able to send about two lakhs of rupees of forest produce annually by the above Railway: as a matter of fact it was the large pent-up wealth of forest produce which the late Lieutenant-Governor, Sir Alfred Lyall, saw in 1884 in the course of his tour in the forests of Oudh, that decided him on the construction of the Lucknow, Sitapur and Seramau Railway to Pilibhít, which would have been completed long ere this, but for the urgent necessity of the extension of the strategic railways on our north-west frontier.

The Bahraich Division.—A fixed tramway is necessary from Nishangara to the Sarda river (7 miles); and a portable one of a maximum length of 15 miles from Nishangara to the annual felling operations, as suggested for the Kheri Forests.

For the purposes of this useful work second class and rejected sleepers would answer admirably, also second hand rails which could be purchased cheaply. The frame work of the trucks, too, could be manufactured in the forests. The axles and wheels would have to be purchased, and these possibly could be procured second hand.

As regards motive power, this need give no cause of difficulty: it is a matter for after consideration in conjunction with the railway authorities.

Control—Services of Officers.

61. I believe that all Divisional Officers have done their duty to the best of their ability.

Several of them are overworked and cannot look after their forests as they would wish to. The paucity of officers in the Oudh Circle is the cause of the loss of much revenue to the State. The loss sylvicultually, however, is far greater, it being an

accepted fact that the injury to forests by not working them to the full extent of their potential capability is only second in detriment to their welfare to over-working them. A happy medium can only be arrived at by considerably augmenting the staff of divisional officers.

62. *Executive Staff.*—The above remarks apply equally to the executive staff; our non-commissioned officers, so to speak—they are, as in the army, the backbone of the service. I had the advantage of discussing this important subject with the Inspector-General of Forests, and in accordance with his suggestion a scheme will be submitted to Government for the immediate increase of the executive staff.

I will mention one lamentable instance, the result of inefficient protective establishment. The Motipur range was in charge of an unexperienced Forester drawing Rs. 20 per mensem on the temporary establishment when the disastrous fire took place in the Nishangara closed block. I agree with the Divisional Officer that had there been a Sub-Divisional Officer with a *qualified* Ranger in charge of the Motipur Sub-division, the above fire would, in all probability, not have occurred, and had it taken place, would have been kept under control.

Rangers Kasim Khan and Mathura Parshad of the Kheri Division have been retired from the service on pension. The Local Government's sanction has been obtained to the retirement of Ranger Amanat-ulla Khan of Gonda.

The services of Ranger Debi Parshad of the Pilibhit Division should be dispensed with as soon as possible, as he is quite unfit, mentally and physically, for the duties of a Ranger.

Of the other executive officers, Mr. Campbell of the Gorakhpur Division reports favourably of his assistant, Babu Raghunath Pathak, Sub-Assistant Conservator of Forests.

The Forest Officers of the Bhira and Bahraich Divisions commend the services of Rangers Parmeshwari Din (passed student of the Dehra School), and Husain Shah (passed Subordinate Engineer of the Roorkee College). These Rangers are about to be promoted.

Ranger Sital Parshad of the Gorakhpur Division was suspended pending trial.

Some Foresters have done good work, others have been dismissed.

63. *Office establishment.*—To bring the Conservator's office into a thoroughly efficient state the services of at least three more clerks are necessary. The Head Clerk of the Conservator's office, Babu Raghubar Dayal Bajpai, has passed the higher standard in forest law, revenue and vernacular during the year. He continues to give the Conservator every satisfaction, and it has been only by incessant hard work out of office hours that he and his assistants have in a measure been able to cope with the ever increasing office work.

Of the head clerks of divisions the District Forest Officers speak highly of the following :—

Babu Ganga Dat Pande	...	...	...	Pilibhit.
„ Daulat Rai	...	...	...	Kheri.
„ Kuar Bahadur	...	...	...	Bahraich.
Chaudhri Ganga Sahaya	...	...	...	Gonda.

The Head Clerk of the Gonda Forest Office, being incapable, was permitted to resign; Chaudhri Ganga Sahaya, Forester, is officiating as Head Clerk.

64. *Health.*—A great deal of illness has been experienced during the year in the Bahraich, Gonda and Gorakhpur Divisions. The Divisional Officers, as well as their protective and office establishments, having suffered considerably. I regret to have to add that several deaths occurred in the protective establishment.

In the Kheri Division the health has been reported as fairly good.

In the Pilibhít and Bhira Divisions as excellent, with the exception of Ranger Debi Parshad, who was absent for six months of the year on medical certificate.

I am inclined to attribute the good health enjoyed by the Forest subordinates of the Pilibhít and Bhira Divisions to the excellence of the water-supply, a most important matter for natives. This is obtained in the following manner, and has been imitated by the more intelligent zamíndárs residing in the vicinity of the forests. After the rains of each year the Forest wells are emptied of rain water, and dredged until pure sand appears, after which about four maunds of cleaned charcoal is thrown into each well; this floats for about a fortnight, and then subsides and forms a thick layer through which the water-supply passes.

NAINI TAL:
The 15th August, 1889.

C. J. PONSONBY,
Offg. Consr. of Forests, N.-W. P. & Oudh, Oudh Circle.

ANNUAL STATEMENTS

AND

APPENDICES.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

AREA OF RESERVED, PROTECTED, AND UNCLASSED STATE FORESTS AND WASTE LANDS, 1888-89.

Division Range.	Civil District or Territory.	Name of Forest.	Area on 1st April, 1888.		Added during the year.	Excluded or transfered to other heads.	Area on 1st March, 1889.		Number and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
Pilibhít Division ...	Pilibhít District ...	Pilibhít Division	97,045	152	...	...	97,045	152	...	
Bhira Sub-division ...	Kheri do. ...	Bhira Sub-division ...	96,651	151	...	...	96,651	151	...	
Kheri do. ...	Ditto do. ...	Newalkhar Sub-division ...	168,296	263	...	...	168,296	263	...	
		Khairigarh Sub-division ...								
Bahraich do. ...	Bahraich do. ...	Motipur Sub-division ...	208,021	325	...	...	208,021	325	...	
		Bhinga Sub-division ...								
Gonda do. ...	Gonda do. ...	Gonda Division	99,137	155	...	...	99,137	155	...	
Gorakhpur do. ...	Gorakhpur do. ...	Gorakhpur Division ...	100,556	157	...	...	100,556	157	...	
		Total of Reserved Forests ...	769,706	1,203	...	...	769,706	1,203	...	
		(*b*). Area of protected forests. *Nil.*								
		(*c*). Area of unclassed State forests and waste land. *Nil.*								
		GRAND TOTAL ...	769,706	1,203	...	...	769,706	1,203	...	

DATED NAINI TAL:
The 15th August, 1889.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

PROSECUTIONS FOR BREACHES OF FOREST RULES DURING 1888-89.

Forest Division and Civil District.	Cases pending from 1887-88.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
I.—Prosecution in the Courts of law.														
Pilibhít Division	...	1	2	...	3	6	6	4	11	2	4	6	15	...
Pilibhít district														
Bhira Sub-division	...	1	1	1	...	3	3	3	7	...	...	3	7	...
Kheri district														
Kheri Division	...	...	3	...	1	4	4	4	5	...	...	4	5	...
Kheri district														
Bahraich Division	...	1	24	3	3	31	31	31	59	...	4	31	63	...
Bahraich district														
Gonda Division	...	...	3	17	...	20	20	18	23	2	5	20	28	...
Gonda district														
Gorakhpur Division	...	3	3	2	2	10	10	10	37	...	1	10	38	...
Gorakhpur district														
Total ... 1888-89 ...	...	6	36	23	9	74	74	70	142	4	14	74	156	...
Total ... 1887-88 ...	...	2	43	32	4	81	81	74	142	7	26	81	168	...
Difference ...	...	+4	−7	−9	+5	−7	−7	−4	...	−3	−12	−7	−12	...
II.—Cases compounded by Divisional officers under section 67 of the Forest Act.														
Pilibhít Division	...	...	2	...	...	2	2	1	1	...	...	1	1	1
Pilibhít district														
Bhira Sub-division	...	...	15	12	1	28	28	27	94	1	1	28	95	...
Kheri district														
Kheri Division	...	...	1	...	...	1	1	1	1	...	...	1	1	...
Kheri district														
Bahraich Division	...	...	1	...	1	2	2	1	1	1	1	2	2	...
Bahraich district														
Gonda Division	...	...	13	19	1	33	33	33	39	...	...	33	39	...
Gonda district														
Gorakhpur Division	...	1	32	10	4	47	47	46	105	1	10	47	115	...
Gorakhpur district														
Total ... 1888-89 ...	...	1	64	41	7	113	113	109	241	3	12	112	253	1
Total ... 1887-88 ...	4	...	72	32	9	113	117	98	220	19	36	117	256	...
Difference ...	−4	+1	−8	+9	−2	...	−4	+11	+21	−16	−24	−5	−3	+1
Grand Total of I and II. 1888-89 ...	...	7	100	64	16	187	187	179	383	7	26	186	409	1
Grand Total of I and II. 1887-88 ...	4	2	115	64	13	194	198	172	362	26	62	198	424	...
Difference ...	−4	+5	−15	...	+13	−7	−11	+7	+21	−19	−36	−12	−15	+1

Amount of compensation realized from cases compounded under section 67 of the Indian Forest Act.

		Rs.	a.	d.
1	Pilibhít	2	8	0
2	Bhira	634	11	0
3	Kheri	5	0	0
4	Bahraich	10	0	0
5	Gonda	193	2	0
6	Gorakhpur	341	8	0
	Total ...	1,186	13	0

and Rs. 93 awarded by the Bahraich Court as compensation.

DATED NAINI TAL:
The 15th August, 1889.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

Form No. 51.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

AREA OF FOREST TRACTS PROTECTED FROM FIRE DURING THE DRY SEASON 1889—TO ACCOMPANY REPORT FOR 1888-89.

Division.	Forest Tracts.	Year in which protection commenced.	Area actually protected up to 15th June, 1888.	During dry season of 1889.			Cost during the season.	Remarks.
				Area attempted to be protected.	Failures.	Actually protected.		
							Rs.	
Pilibhit Division ...	North Pilibhit	1880	19,288	20,588	5,251	15,337	1,807	
	East „							
	South East „							
	Maina Kot „	1881	13,830	16,830	12,954	3,876		
	Dhanara „	1886	3,160	6,360	2,167	4,193		
	Total ...	...	36,278	43,778	20,372	23,406	1,807	
Bhira Sub-Division,	Marha	1887	10,864	15,930	205	15,725	1,804	
	Menziesganj	1885	2,694	7,114	700	6,414		
	Khareta	1885	2,994	3,834	1	3,833		
	Kaptawa Menziesganj	1886	...	7,414	...	7,414		
	Baraunecha	1888	4,008	4,302	17	4,285		
	Total ...	...	20,560	38,594	923	37,671	1,804	
Kheri Division ...	Dudua home block	1872	32,230	32,240	33	32,207	2,148	
	Newalkhar Sub-division							
	Kusumbha home block	8881	39,320	39,640	..	39,640	1,555	
	Khairigarh Sub-division							
	Total ...	...	71,550	71,880	33	71,847	3,703	
Fahraich Division ...	Motipur	1878	64,593	64,960	19,291	45,660	675	
	Chakia Charda	1875 to 85	23,002	23,040	219	22,821	560	
	Bhinga	1875 to 76	65,547	69,760	...	69,760	1,236	
	Total ...	...	153,142	157,760	19,510	138,250	2,491	

(28)

Gonda Division ...	Section I to IV.	1880	94,917	99,137	8,848	90,289	224		
	Nawabganj	1880-87							
	Total ...	...	94,917	99,137	8,848	90,289	224		
Gorakhpur Division,	Ramgarh and Tilkonia	1875	6,754	6,754	...	6,754	1,496		
	Nagwa		6,900	6,900	...	6,900			
	Sonari and Jagpur		22,282	22,282	480	21,802			
	Dudhai		8,600	8,600	...	8,600			
	Bhillampur and Banki		4,154	4,154	...	4,154			
	East Lehra		7,600	7,600	...	7,600			
	West Lehra		10,760	12,300	540	11,760			
	Bhari Baisi		6,000	6,000	...	6,000			
	Bhari Baban								
	Sakhui Sissu plantation	1886	2,080	2,180	...	2,180			
	Total ...	...	75,130	76,770	1,020	75,750	1,496		
	Grand Total 1888-89 ...	...	451,577	487,919	50,706	437,213	11,525		
	1887-88 ...	...	382,611	487,819	30,242	451,577	13,719		
	Difference	...	+ 68,966	+ 100	+ 20,464	14,364	− 2,194		

NOTE.—This form is for the dry season, and not for the financial year, and therefore the date up to which expenditure is included must be filled in to suit the circumstances of each circle.

DATED NAINI TAL:
The 15th August, 1889.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

Form No. 52.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

AREA OF PLANTATIONS, 1888-89.

Division	Name of Plantation.	Area in Acres. On 1st April, 1888.	Added during the year.	Excluded during the year.	Area on 31st March, 1889.	Receipts. Of the year.	Charges. Of the year.	Remarks.
							Rs.	
Bahraich ...	Nishangara	11	...	...	11	...	...	
	Kain	5	...	...	5	...	...	
	Doondra	2	...	...	2	...	...	
	Ponsonbyganj	1	...	...	1	...	...	
	Total ...	19	...	...	19	...	...	
Gorakhpur ...	Ramgarh	303	...	...	303	...	15	
	Sonari	200	...	...	200	...	82	
	Sakhui	2,080	100	...	2,180	...	2,064	
	East Lehra	40	...	...	40	...	117	
	Total ...	2,623	100	...	2,723	...	2,278	
	Grand Total ...	2,642	100	...	2,742	...	2,278	
Filibhit ...	Cultural operations	...	...	...	...	...	...	
Bhira ...	Ditto	17	...	...	17	...	25	
Kheri ...	Ditto	33	...	...	33	...	197	
Bahraich ...	Ditto	5	...	...	5	...	...	
Gonda ...	Ditto	...	...	...	...	...	2	
	Total ...	55	...	...	55	...	224	
	GRAND TOTAL ...	2,697	100	...	2,797	...	2,502	

DATED NAINI TAL:
The 15th August, 1889.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and O. Oudh Circle.

Form No. 53.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

TREES FELLED OR GIRDLED BY GOVERNMENT AGENCY DURING THE YEAR 1888-89 (SELECTION FELLINGS).

Division.	Trees felled or girdled.		Remarks.
	Description.	Number.	
Kheri Division ...	Sál	2,500	All these are first class.
	Asaina	8	Trees over six feet in girth.
	Total ...	2,508	

Dated Naini Tal:
The 15th August, 1889.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

Form No. 54.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

OUTTURN OF TIMBER AND FIREWOOD,* DURING THE YEAR 1888-89.

Division.	Description of materials.	Outturn in cubic feet.								Remarks.
		Selection fellings.	Clearances.	Thinnings.	Total.	Removed by—				
						Government Agency.	Purchasers.	Free grants.	Right-holders.	
	1.—Reserved Forests.									
Pilibhit.	Sál wood	...	13,740	54	13,794	...	4,549	...	9,245	
	Poles and Saplings	...	177,935	912	1,78,847	...	2,377	...	176,470	
	Miscellaneous wood	...	4,180	...	4,180	...	1,660	...	2,520	
	Manufactured articles	...	524	...	524	...	524	...	...	
	Drift wood	...	7	...	7	...	7	...	...	
	Total ... Timber ...	...	196,386	966	197,352	...	9,117	...	188,235	
	Total ... Firewood ...	...	174,264	6,702	180,966	...	56,092	...	124,874	
	Total timber and firewood ...	...	370,650	7,668	378,318	...	65,209	...	313,109	
Bhira Sub-Division.	Ballis	...	142	231	373	231	142	...	...	
	Beams	...	4,567	835	5,402	889	4,243	270	...	
	Poles	...	5,161	112	5,273	168	253	4,852	...	
	Pieces	...	10,335	1,595	11,930	1,485	792	9,653	...	
	Saplings	...	65,283	...	65,283	...	9,375	55,908	...	
	Drift wood	...	152	...	152	152	...	...	...	
	Total ... Timber ..	...	85,640	2,773	88,413	2,925	14,805	70,683	...	
	Total ... Firewood ...	...	322,384	110,139	432,523	110,139	175,360	147,024	...	
	Total timber and firewood ...	...	408,024	112,912	520,936	113,064	190,165	217,707	...	
Kheri.	Green Sál logs	214,730	...	34,037	248,767	248,767	...	...	...	
	Dry „ „	30,785	2,065	...	32,850	...	32,790	60	...	
	Green Asaina „	12,431	...	4,794	17,225	15,641	1,584	...	...	
	„ Haldu „	107	...	...	107	107	...	...	...	
	„ Jamun „	1,607	...	...	1,607	...	1,607	...	...	
	Miscellaneous articles dry ... Sál ...	...	3,723	...	3,723	...	811	2,912	...	
	Sissu ...	...	1,313	...	1,313	...	995	318	...	
	Khair ...	...	97	...	97	...	92	5	...	
	Dry Sál poles	...	4,581	...	4,581	...	4,581	...	...	
	Green Asaina poles	...	236	...	236	200	36	...	...	
	Dry Sissu „	...	22	...	22	...	22	...	...	
	Miscellaneons ... Unreserved ...	...	177,680	...	177,680	296	2,057	175,327	...	
	Props and posts ...	...	43,598	...	43,598	...	521	43,077	...	
	Drift timber	...	313	...	313	...	313	...	...	
	Total ... Timber ...	259,660	233,628	38,831	532,119	265,011	45,409	221,699	...	
	Total ... Firewood ...	...	216,735	...	216,735	...	27,361	189,374	...	
	Total timber and firewood ...	259,660	450,363	38,831	748,854	265,011	72,770	411,073	...	

* Inclusive of Charcoal.

Bahraich.	Drift collections	...	...	13,506	...	13,506	...	...	...	...
	Total	...	...	13,506	...	13,506	...	...	...	...
	Green Sál logs	...	...	14,000	...	14,000	...	14,000	...	...
	Half dead Sál logs	...	...	5,664	...	5,664	...	5,654	...	...
	Dry Sál logs	...	...	16,886	...	16,886	...	16,886	...	...
	Green Sál poles	...	...	33,931	...	33,931	...	33,931	...	...
	Half dead Sál poles	...	...	16,490	...	16,490	...	16,490	...	...
	Dry Sál poles	...	...	49,037	...	49,037	...	48,850	187	...
	Dry Sál hollow logs	...	...	7,443	...	7,443	...	7,443	...	...
	Green Sál ... hollow logs		...	21,483	...	21,483	...	21,483	...	...
	Green Sál ... Withies, &c.		...	65	...	65	...	65	...	
	Green Sál Asna logs	...	...	23,378	...	23,378	...	23,378	...	...
	„ „ „ poles	...	...	66,514	...	66,514	...	66,514	...	...
	Dry Asna logs	...	...	2,167	...	2,167	...	2,167	...	...
	„ „ poles	...	...	4,017	...	4,017	...	4,017	...	...
	„ Sissu logs	...	...	502	...	502	...	502	...	...
	Green „ „	...	...	224	...	224	...	224	...	...
	„ Miscellaneous logs	...	...	12,036	...	12,036	...	12,036	...	...
	„ „ poles	...	...	1,084,715	...	1,084,715	...	70,737	1103,978	...
	„ Kusum Mahua	...	...	26,390	...	26,390	...	26,390	...	...
	Miscellaneous articles of dry Sál	...	...	2,672	...	2,672	...	2,672	...	...
	Dry miscellaneous logs	...	...	1,030	...	1,030	...	1,030	...	...
	„ „ poles	...	...	410	...	410	...	410	...	...
	Drift timber	...	...	168	...	168	...	168	..	...
	Total ... Timber		...	1,389,222	...	1,389,222	...	375,057	1,014,165	...
	Total ... Firewood and charcol		...	80,894	...	80,894	...	56,054	24,840	...
	Total timber and firewood		...	1,470,116	...	1,470,116	...	4,31.111	1,039,005	...
Gonda.	Sál timber	...	...	14,663	228	14,891	1,826	12,563	502	...
	Asaina „	...	...	5,303	...	5,303	1,319	3,637	347	...
	Tikui „	...	...	2,976	...	2,976	...	2,976	...	...
	Dhao „	...	...	6,550	...	6,550	...	6,550	...	...
	Sissu „	...	...	2,895	...	2,895	202	2,693	...	...
	Mahua „	...	...	468	1,416	1,884	1,416	468	...	...
	Jamun „	...	...	189	...	189	...	189	...	...
	Miscellaneous	...	...	109,760	...	109,760	...	27,357	82,403	...
	Drift	...	...	2,270	...	2,270	2,270	...	...	...
	Total ... Timber		...	145,074	1,644	146,718	7,033	56,433	83,252	...
	Total ... Firewood and charcoal,		...	372,218	150,800	523,018	152,406	2,87,632	82,980	...
	Total timber and fuel		...	517,292	152,444	669,736	159,439	3,44,065	166,232	...

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

OUTTURN OF TIMBER AND FIREWOOD, DURING THE YEAR 1888-89—*(concluded)*.

Division.	Description of materials.	Outturn in cubic feet								Remarks.
		Selection fellings.	Clearances.	Thinnings.	Total.	Removed by— Government Agency.	Purchasers.	Free grants.	Right-holders.	
Gorakhpur.	Sál timber	...	6,598	16,228	22,826	12,470	10,356	...	...	
	Miscellaneous	...	6,402	10,321	16,723	1,461	15,262	...	...	
	Drift	...	55,386	...	55,386	55,386	...	...	...	
	Total ... Timber	...	68,386	26,549	94,935	69,317	25,618	...	...	
	Total ... Firewood and charcoal,	...	126,447	106,097	232,544	14,409	218,135	...	...	
	Total Timber and Firewood ...	194,833	194,833	132,646	327,479	83,726	243,753	...	...	
	Grand Total ... Timber	259,660	2,131,842	70,763	2,462,265	357,792	526,439	1,389,799	188,235	
	Grand Total ... Firewood	...	1,292,942	373,738	1,666,680	276,954	820,634	444,218	124,874	
	GRAND TOTAL OF ALL	259,660	3,424,784	444,501	4,128,945	634,746	1,347,073	1,834,017	313,109	
	II.—Protected Forest. *Nil.*									
	III.—Unclassed State Forest and waste land. *Nil.*									
	Abstract of the Circle.									
	Total Timber and Firewood... 1888-89,	259,660	3,424,784	444,501	4,128,945	634,746	1,347,073	1,834,017	313,109	
	Total Timber and Firewood... 1887-88,	346,658	5,155,147	312,954	5,814,759	698,247	1,619,368	2,395,461	1,101,684	
	Difference	−86,998	−1,730,363	+131,547	−1,685,814	−63,501	−272,295	−561,444	−788,574	

DATED NAINI TAL:
The 15th August, 1889.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

OUTTURN OF MINOR FOREST PRODUCE DURING THE YEAR 1888-89.

Division.	Description of Produce.	Produce removed or utilized.										Remarks.
		By Government Agency.		By purchasers.		By free grants.		By Right-holders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
					I.—Reserved Forests.							
			Rs.		Rs.		Rs.		Rs.		Rs.	
Pilibhit.	Grazing dues	...	...	...	1,242	...	...	...	1,693	...	2,935	
	Minor produce grass	...	45	...	1,097	...	...	...	2,555	...	3,697	
	Ditto honey and wax ...	...	...	...	125	...	...	...	...	...	125	
	Ditto lac	...	...	...	1	...	...	...	...	...	1	
	Ditto hides and horns ...	...	...	...	41	...	...	...	...	...	41	
	Ditto miscellaneous	...	...	...	314	...	...	...	124	...	438	
	Total ... { Grazing	...	...	...	1,242	...	...	...	1,693	...	2,935	
	{ Minor produce ...	...	45	...	1,578	...	...	...	2,679	...	4,302	
	Grand Total ...	...	45	...	2,820	...	...	...	4,372	...	7,237	
Behra.	Grazing dues	...	...	...	1,925	...	...	...	...	...	1,925	
	Minor produce grass ...	...	5,490	...	77	...	580	...	...	...	6,147	
	Ditto fruit ...	...	328	...	...	...	...	...	...	...	328	
	Ditto hides ...	...	17	...	30	...	...	...	...	...	47	
	Ditto honey and wax ...	...	11	...	...	...	...	...	...	...	11	
	Ditto minerals ...	...	...	...	53	...	...	...	...	...	53	
	Ditto miscellaneous ...	...	...	...	2	...	26	...	...	...	28	
	Total ... { Grazing ...	...	...	...	1,925	...	...	...	...	...	1,925	
	{ Miscellaneous ...	...	5,846*	...	162	...	606	...	...	...	6,614	*Includes Rs. 2,430 outstanding unrealized
	Grand Total ...	...	5,846	...	2,087	...	...	...	...	...	8,539	

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

OUTTURN OF MINOR FOREST PRODUCE DURING THE YEAR 1888-89—*(continued)*.

Division.	Description of Produce.	Produce removed or utilzed.										Remarks.
		By Government Agency.		By purchasers.		By free grants.		By right-holders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
			Rs.		Rs.		Rs.		Rs.		Rs.	
Kheri.	Grazing dues	...	...	...	*10,989	...	1,027	...	...	...	12,016	*Includes 1,041-14-9 outstanding realized.
	Minor produce Khair (catechu)	...	...	...	8,066	...	...	...	...	...	8.066	
	Ditto grasses	...	...	...	78	...	5,680	...	...	...	5,758	
	Ditto fruits	...	...	...	433	...	...	...	...	...	433	
	Ditto honey and wax	...	...	...	375	...	...	...	...	...	375	
	Ditto bark	...	...	...	1	...	...	...	...	...	1	
	Ditto hides	...	...	...	450	...	...	...	...	...	450	
	Ditto minerals	...	...	...	44	...	...	...	...	...	44	
	Ditto miscellaneous	...	...	...	870	...	...	...	...	...	870	
	Total ... Grazing	...	...	...	10,989	...	1,027	...	...	...	12,016	
	Total ... Minor produce	...	...	...	10,317	...	5,680	...	...	...	15,997	
	Grand Total	...	...	...	21,306	...	6,707	...	...	...	28,013	
Bahraich.	Grazing dues	...	...	...	15,912	...	...	...	...	...	15,912	
	Bamboos	...	...	...	177	...	...	...	...	...	177	
	Minor produce	...	...	...	372	...	...	...	...	...	372	
	Ditto honey and wax	...	...	...	2,723	...	...	...	...	...	2,723	
	Ditto fruits and flowers	...	...	...	167	...	...	...	...	...	167	
	Ditto khair (catechu)	...	500	...	408	...	...	...	...	...	908	
	Ditto hides	...	500	...	45	...	...	...	...	...	45	
	Ditto cane	...	2	...	1,803	...	1,773	...	...	...	3,578	
	Ditto grasses	...	2	...	...	...	271	...	...	...	271	
	Ditto thorns	...	...	...	47	...	5	...	...	...	52	
	Ditto miscellaneous	...										
	Total ... Bamboos	...	...	...	177	...	...	...	...	...	177	
	Total ... Grazing	...	...	...	15,912	...	...	...	...	...	15,912	
	Total ... Minor produce	...	502	...	5,565	...	2,049	...	...	...	8,116	
	Grand Total	...	502	...	21,654	...	2,049	...	...	...	24,205	

Gonda.	Grazing dues	...	...	...	...	7,092	...	...	...	...	...	7,092
	Minor produce grasses	...	...	1,808	...	5,026	...	159	...	...	...	6,993
	Ditto fruits and flowers	...	...	...	...	594	...	...	...	...	...	594
	Ditto honey	...	...	...	...	3	...	...	...	...	...	3
	Ditto hides	...	...	...	...	75	...	...	...	...	...	75
	Ditto khair	...	...	...	...	342	...	...	...	...	...	342
	Ditto lime	...	...	2,000	...	309	...	...	...	...	...	2,309
	Ditto miscellaneous	...	...	778	...	37	...	...	...	...	...	815
	Ditto elephant fodder	...	...	...	...	...	...	1,299	...	...	...	1,299
	Ditto confiscated produce	..	...	32	...	...	...	...	...	...	...	32
	Total ... Grazing	...	...	...	...	7,092	...	...	...	...	...	7,092
	Total ... Minor produce	...	...	4,618	...	6,386	...	1,458	...	...	...	12,462
	Grand Total	...	...	4,618	...	13,478	...	1,458	...	...	...	19,554
Gorakhpur.	Bamboos ...	...	...	...	...	9	...	...	...	...	...	9
	Grazing dues ...	...	...	...	...	9,021	...	...	...	...	...	9,021
	Minor produce grasses ...	...	...	263	...	14,177	...	...	...	...	...	14,440
	Ditto hides ...	...	...	...	...	759	...	...	...	...	...	759
	Ditto narkul ...	...	...	...	...	127	...	...	...	...	...	127
	Ditto canes ...	...	...	...	...	91	...	...	...	...	...	91
	Ditto wild fruit ...	...	...	...	...	28	...	...	...	...	...	28
	Ditto honey ...	...	...	...	...	11	...	...	...	...	...	11
	Ditto leaves ...	...	...	...	...	18	...	...	...	...	...	18
	Ditto pattore ...	...	...	...	...	269	...	...	...	...	...	269
	Total ... Bamboos ...	...	...	...	...	9	...	...	...	...	...	9
	Total ... Grazing ...	...	...	...	...	9,021	...	...	...	...	...	9,021
	Total ... Minor produce	...	...	263	...	15,480	...	...	...	...	...	15,743
	Grand Total	...	...	263	...	24,510	...	...	...	...	...	24,773
Grand Total,	Bamboos ...	...	...	...	...	186	...	...	...	...	...	186
	Grazing ...	...	...	...	...	46,181	...	1,027	...	1,693	...	48,901
	Minor produce	...	...	11,274	...	39,488	...	9,793	...	2,679	...	63,234

II.—Protected Forests.

Nil.

III.—Unclassed State Forests and waste lands.

Nil.

Grand Total,	1888-89 ...	...	...	11,274	...	85,855	...	10,820	...	4,372	...	1,12,321
	1887-88 ...	...	...	6,244	...	90,154	...	10,417	..	25,787	...	1,32,602
	Difference	...	...	+5,030	...	−4,299	...	+403	...	−21,415	...	−20,281

Dated Naini Tal:
The 15th August, 1889.

C. J. PONSONBY,

Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

ACCOUNT OF TIMBER AND OTHER PRODUCE CUT OR COLLECTED BY GOVERNMENT AGENCY AND BROUGHT TO SALE DEPÔTS OR SOLD LOCALLY DURING THE YEAR 1888-89—(*concluded.*)

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
BALANCE AT COMMENCEMENT OF THE YEAR.				
(1.)—*Sale Depôt.*				
BAHRAMGHÁT DIVISION.				
Bahramghát Depôt. — Sál logs	1,401	66,522		
Asaina logs	136	6,984		
Sissu „	15	344		
Haldu „	20	891		
Sál scantlings	23,870	18,389		
Sál sleepers	23,310	34,749		
Asaina scantlings	403	320		
Sissu „	384	140		
Sundri „	30	9		
Deodár „	5	16		
Dhamin „	27	8		
Haldu „	11	10		
Miscellaneous poles	433	520		
Sissu stumps	33	281		
Sál pieces or botas	106	1,482		
Asaina pieces or botas	9	138		
Sál off-cuts	2,324	...		
Asaina off-cuts	267	...		
Sissu „	97	...		
Haldu „	4	17		
Firewood (mds.)	46,084	...		
Large boats	19	...		
Sissu pieces	10	102	54,060	140,565
Drift timber	1,146	9,634	46,084 mds.	mds.
Lucknow Depôt. — Sál scantlings	8,307	5,287		
Sissu	17	11		
Asaina	138	115		
Haldu	15	5		
Sissu off-cuts (mds.)	141	...		
Sissu off-cuts (No.)	351	...	8,828	5,418
Firewood (mds.)	56,996	...	57,137 mds.	mds.
Karmandi Depôt. — Sál sleepers	549	732		
Asaina sleepers	259	388	808	1,120
Total of Bahramghát Division	...	...	63,696	1,47,103
			1,03,221 mds.	mds.

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet
LOCALLY—(*concluded*).				
BHIRÁ SUB-DIVISION. — Poles, beams, rafters &c.	2,562	10,163		
Firewood (Number,)	5	...	2,567	10,163
Firewood (Maunds,)	19,490	...	19,543	mds.
Minor produce	53	...	...	
PILIBHÍT DIVISION. — Poles, &c.	592	626	592	626
Fire wood	4,600	...	4,600	
Total Balance (Number,)	...	...	546,524	1,402,280
Total Balance (Maunds,)	...	...	1,61,268	mds.
GRAND TOTAL (Number,)	...	...	967,698	2,544,424
GRAND TOTAL (Maunds,)	...	...	240,040	mds.
RECEIPTS.				
(2.)—*From the Forests in sale Depôts.*				
Sál logs	3,879	175,615		
Asaina logs	888	44,804		
Haldu	159	8,535		
Sal poles	319	3,471		
Miscellaneous poles	74	74		
Sissu logs drift timbers	20	446	5,339	232,945
(3).—*Received from the Forests in Depôts other than sale Depôts.*				
Sál logs and pieces	7,080	236,850		
Asaina „ „	499	16,980		
Sissu „ „	2	202		
Mahua „ „	126	1,416		
Sál poles, ballas, &c.	813	1,504		
Asaina ditto	10,893	13,284		
Sissu off-cuts, poles and ballas	4	16		
Sál botas or pieces	1,772	7,424		
Miscellaneous poles and saplings	3,052	4,026		
Sál sleepers	576	864		
Sál planks	24	6		
Sál timbers and manufactured articles	140	293		
Miscellaneous wood	11	40		
Dug out canoes of hollow trees	35	...		

	Locally.						
Kheri Division.	Sál logs	6,038	256,914				
	Asania „	1,693	70,742				
	Sissu „	3	64				
	Haldu „	313	20,568				
	Sál sleepers	30,257	45,383				
	Asania	67,115	98,745				
	Sál signal posts	11	203				
	Sál slabs	2,66,681	400,298				
	Asaina „	70,559	231,558				
	Large boats	60	...				
	Canoes	503	...	443,233	1,124,474		
Bahraich Division.	Sál sleeper	582	774				
	„ off-cuts	6,648	12,837				
	„ logs	45	1,812				
	„ poles	6,688	77,606				
	„ sleepers, Kheri	8,884	13,326				
	Mongri	2	...				
	Plank	1	...				
	Miscellaneous poles	9	150	22,859	106,505		
Gonda Division.	Sál logs	630	1,920				
	Asaina „	98	490				
	Sál off-cuts	2,537	1,268				
	Asaina „	70	70				
	Jamun logs	27	108				
	Jamun off-cuts	450	225				
	Dhao logs	15	60				
	Poles	7,411	3,726				
	Mahua logs	17	85				
	Dhao axles	192	96				
	Jothas	11	5				
	Axe handle	13	2				
	Fire wood (mds.)	32,000	...	11,471	8,055 mds.		
	Minor produce (mds.)	1,903	...	33,903			
Gorakhpur Division.	Sál pieces	882	3,528				
	„ sleepers	620	930				
	„ ballas	4	8				
	„ planks	300	75				
	„ agailas	168	336				
	Drift collection (No.)	132	477	2,106	5,354 mds.		
	Drift collection (Mds.)	1		1			
	Sál off-cuts (No.)	226	423				
	Fuel (Mds.)	51,198	...				
	Charcoal (Mds.)	131	...				
	Minor produce (No.)	1,098	...				
	Minor produce (Mds.)	9,754	...				
	Drift timbers (No.)	16,776	79,214	43,124	362,542		
	Drift timbers (Mds.)	24,308	...	91,391	mds.		
	(4).— *Received from the forests and sold locally.*						
	Sál pieces	4,558	3,758				
	Miscellaneous timbers	116	140				
	Asaina poles	4,360	8,720				
	Drift collections (Nos.)	11	2,605				
	Drift collections (Mds.)	80					
	Fuel	33,967	...				
	Charcoal	10	...				
	Sál bark	340	...	9,045	15,223		
	Minor produce	13,497	...	47,894	mds.		
	(5.)— *Received by conversion in Depôts.*						
	Sál logs	290	13,129				
	Haldu legs	2	107				
	Sál scantlings	96,962	1,26,560				
	Asaina	8,728	4,694				
	Sissu	1,147	316				
	Haldu scantlings	449	366				
	Sál sleepers	5,816	11,522				
	Asaina „	1,766	2,758				
	Sal planks (Nos.)	37	34				
	Sal planks (Mds.)	1,803	...				
	Sál pieces	2,118	20,884				
	Asaina	44	314				
	Sissu pieces	15	120				
	Haldu „	14	129				
	Asaina poles	456	912				
	Sal off-cuts (Nos.)	24,026	25,993				
	Sal off-cuts (Mds.)	55,169					
	Sissu „ (Nos.)	204	72				
	Sissu „ (Mds.)	54					
	Asaina „ (Nos.)	684	1,073				
	Asaina „ (Mds.)	495					
	Haldu „ (Nos.)	234	169				
	Haldu „ (Mds.)	161					
	Sal stabs	130	130				
	Fuel	280	...	143,857	212,344		
	Poles and saplings	735	3,062	57,962	mds.		
	(6.)—*By Transfer, &c.*						
	Sál scantlings	13,165	9,494				
	Asaina „	52	15				
	Sissu „	37	5				
	Haldu „	150	120				
	Sál planks	1,338	...				
	Sál slabs and off-cuts (Nos.)	12,374	...				
	Sál slabs and off-cuts (Mds.)	10,396	9,210				

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

ACCOUNT OF TIMBER AND OTHER PRODUCE CUT OR COLLECTED BY GOVERNMENT AGENCY AND BROUGHT TO SALE DEPÔTS OR SOLD LOCALLY DURING THE YEAR 1888-89—*(continued.)*

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
(6)—*By Transfer, &c.*—(concluded).				
Poles	423	...		
Fuel ... ... Mds.	8,654	500		
Poles received from old shed	90	...		
Asaina sleepers written back	678	80		
Difference in Kheri measurement, Sál scantlings,	...	1,017		
Difference in Kheri measurement, Asaina ...	...	714		
Sál logs Bahramghát ... Sál scantlings.	...	2,070		
Sál logs Bahramghát ... Asaina ...	...	1		
Asaina scantlings	42	13		
Sál scantlings difference	31	13	27,066	23,420
Sál beams	24	168	20,388	mds.
Total Receipts ... Nos.	...	...	228,431	846,474
Total Receipts ... Mds.	...	...	2,17,635	
GRAND TOTAL ... Nos.	...	...	774,955	2,248,744
GRAND TOTAL ... Mds.	...	...	3,78,903	
DISPOSALS.				
(7.)—*To purchasers from Sale Depôts.*				
Sál logs	1,346	56,554		
Asaina „	837	41,044		
Sissu „	9	210		
Haldu „	155	7,912		
Sál scantlings	85,645	94,786		
Sál sleepers	6,526	9,481		
Asaina scantlings	6,968	2,991		
Sissu „	1,128	265		
Sundri „	30	9		
Deodár „	5	16		
Dhamin „	27	8		
Haldu „	425	365		
Miscellaneous poles	510	154		
Sál pieces	1,553	13,752		
Asaina „	32	27		

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
(10.)—*To conversion in Depôts.*				
Sál logs and pieces	6192	2,01,176		
Asaina „	374	9,780		
Sissu „	22	504		
Haldu „	14	865		
Sál scantlings	6,799	14,959		
Asaina „	10	38		
Sissu „	23	7		
Sál pieces	630	7,692		
Asaina „	1	34		
Sissu „	7	56		
Poles and saplings	735	3,062		
Asaina poles	456	912		
Sál off-cuts	6,547	29,435		
Asaina „	600	1,073		
Sissu „	57	57		
Haldu „	38	169		
Sissu stumps	33	281	22,538	270,100
(11.)—*To Lost or written off.*				
Sissu logs	3	64		
Sál scantlings	621	845		
„ Beams poles	215	1,012		
„ Slabs	259	488		
„ poles	12	240		
Asaina „	2	4		
Sál off-cuts	53	143		
Dhao axles	8	4		
Manufactured articles	24	7		
Firewood ... ... Mds. ...	15,666	...		
Minor produce ... ... Mds. ...	161	...	1,831	6,640
Drift collection	634	3,833	15,827	mds.

Haldu „		11	117			
Sál off cuts	Nos. ...	6,502	...			
	Mds. ...	9,630	...			
Asaina „	Nos. ...	152	...			
	Mds. ...	245	...			
Sissu „	Nos. ...	120	15			
	Mds. ...	451	...			
Haldu „	Nos. ...	161	...			
	Mds. ...	196	...			
Large boats		11	...			
Thin Sál planks	mds.	1,525	...			
Firewood	mds.	52,991	...	112,778	228,446	
Asaina sleepers		259	388	64,672	mds.	
(8.)—*To purchasers from Forest Depôts.*						
Sál logs, &c.		277	1,298			
„ poles		6,973	5.182			
„ planks		326	81			
„ slabs		4,000	8,000			
„ sleepers		8,586	13,151			
„ off-cuts		2,800	6,035			
Asaina sleepers		20,311	30,466			
„ off-cuts		30	30			
„ poles		5,553	6,678			
Poles and saplings		2,870	5,943			
Miscellaneous timber		10	36			
Fuel ... ... Mds. ...		82,351	...			
Minor produce ...	Nos. ...	1,102	...			
	Mds. ...	9,331	...			
Drift timber	Mds. ...	24,308	73,560			
	Nos. ...	15,338				
Sál timber		99	208	68,275 1,15,990	1,50,668 mds.	
(9.)—*To purchasers locally.*						
Sál timber		1,442	2,192			
Sál poles		3,116	1,566			
Asaina poles		4,360	8,720			
Miscellaneous poles		116	140			
Sál bark ... ... mds.		340	...			
Firewood ... ... mds.		33,967	...			
Charcoal ... ... mds.		10	...			
Minor produce ... ... mds.		13,497	...			
Drift timber	Nos. ...	11	...	9,045	15,223	
	Mds. ...	80	2,605	47,894	mds.	

(12.)—*To used departmentally.*				
Sál logs and pieces	68	3,205		
Asaina „	92	1,714		
Sissu „	2	202		
Mahua „	11	55		
Sál poles	1,145	919	...	...
Asaina „	10	10	...	...
Sál scantlings	495	7,301	...	...
Sissu „	64	25	...	...
Asania „	42	13	...	...
Sál Sleepers	30	45	...	...
Sál pieces	7	17	...	...
Haldu „	2	5	...	...
Sál beams	20	140	...	...
Sál off-cuts ... ... Nos. ...	6,566	507	...	...
Mds. ...	32,850		...	...
Asaina „ ... ... Mds. ...	167	80	...	...
Nos. ...	193		...	...
Poles and saplings	34	84		...
Sál slabs	5,685	8,527	14,467	22,827
Sál signal posts	1	18	33,017	mds.
(13.)—*To Transfer.*				
Sál logs	3,879	1,75,615	...	...
Asaina „	888	44,804	...	...
Haldu „	159	8,535	...	...
Bondas or poles	74	74	...	...
Sál slabs	6,074	9,210	...	...
Miscellaneous poles	423	500	...	...
Sál scantlings	13,165	9,494	...	...
Asaina „	42	13	...	...
Sissu „	89	20	...	...
Haldu „	150	120	...	...
Sál planks ... ... Mds. ...	1,338	...	...	...
Sál off-cuts ... ... Mds. ...	10,396	...	...	...
Nos. ...	7,046	...	...	...
Signal posts	8	149	...	...
Fuel ... ... Mds. ...	8,654	...	...	...
Drift timber	20	446	32,336	252,451
Sál poles	319	3,471	20,388	mds.
(14.)—*To made over to claimants of drift timber.*				
Drift timber	253	1,904	253	1,904
Total Disposal ... Number ...		...	261,522	948,259
Maunds ..		...	297,788	

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

ACCOUNT OF TIMBER AND OTHER PRODUCE CUT OR COLLECTED BY GOVERNMENT AGENCY AND BROUGHT TO SALE DEPÔTS OR SOLD LOCALLY DURING THE YEAR 1888-89—*(concluded)*.

	Particulars.		No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
(15.)—*Balance at close of the year Sale Depôts.*						
Bahramghát Division. — Bahrumghát Depôt.	Sál logs		341	18,344		
	Asaina „		80	5,758		
	Sissu „		4	76		
	Haldu „		10	650		
	Sál scantlings		8,393	9,736		
	Sál sleepers		17,333	26,000		
	Asaina scantlings		180	51		
	Sissu „		317	161		
	Haldu „		12	13		
	Miscellaneous poles		10	29		
	Large boats		8	...		
	Sál pieces		161	1,413		
	Asaina „		20	139		
	Sissu „		18	166		
	Haldu „		1	7		
	Sál off-cuts	Number	6,890	...		
		Maunds	11,180	...		
	Asaina	Number	46	...		
		Maunds	83	...		
	Sissu	Number	144	...		
		Maunds	54	...		
	Haldu		4	17		
	Sál poles		319	3,471	34,294	66,031
	Firewood	Maunds	33,448	...	44,767	mds.
Bahramghát Division. — Lucknow Depôt.	Sál scantlings		1,034	107		
	Thin Sál planks		278	...		
	Sissu scantlings		16	9		
	Haldu „		38	3		
	Sál off-cuts	Number	830	...		
		Maunds	1,528	...		
	Miscellaneous poles		77	...	1,995	119
	Firewood	Maunds,	1,200	...	3,006	mds.
Bahramghát Division drift timber			488	3,710	488	3,710

	Particulars.		No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
	LOCALLY—*(concluded)*.					
GORAKHPUR DIVISION.	Sál ballas poles		1,235	2,470	...	
	Asaina „ „		52	104	...	
	Sál koros		3,988	8,988	...	
	Asaina „		58	58	...	
	Sál pieces and agailas		1,556	6,224	...	
	„ Goles		473	473	...	
	„ Dharans		42	84	...	
	„ off-cuts		38	38	...	
	„ Chaukhats		2	2	...	
	„ Battens		32	24		
	Cart manufacture		1	17		
	Miscellaneous pieces		1	4		
	Sissu pieces agailas		4	16		
	Firewood	Mds.	38	...		
	Drift timber of Gandak		394	2,861	8,802	19,557
	„ „ of Rapti		926	3,212	38	mds.
BHIRA SUB-DIVISION.	Poles and saplings	Mds.	191	3,157		
	Firewood	Nos.	23,896	...		
	Charcoal		131	...	892	
	Minor produce	Mds.	94	...	24,121	3,175
		No.	1	...		mds.
PILIBHIT DIVISION.	Poles and saplings		623	666	623	666
	Firewood	Mds.	5,575	...	5,575	mds.
	TOTAL BALANCE	Nos	...	...	5,13,433	1,300,495
		Mds.	...	...	81,115	mds.
	GRAND TOTAL	Nos.	...	...	774,955	2,248,754
		Mds.	...	...	378,903	

	LOCALLY.						
KHERI DIVISION.	Sál sleepers	...	...	35,932	57,136		
	Asaina „	...	...	49,248	74,123		
	Sál logs and pieces	...	...	6,850	293,676		
	Asaina „ „ „	...	...	1,020	36,785		
	Haldu ...	...	...	156	12,140		
	Sál signal posts*	...	...	2	36		
	Sál slabs	...	...	2,56,737	383,128		
	Asaina „	...	...	70,559	231,558		
	Sál scantlings	...	...	26,183	22,515		
	Asaina „	...	...	2,069	2,036		
	Large boats	...	...	60	...		
	Dug out canoes	...	...	538	...	449,354	1,113,133
BAHRAICH DIVISION.	Sál sleepers	...	...	582	774	...	
	„ off-cuts	...	...	6,165	12,107	...	
	„ logs	...	...	44	1,795	...	
	„ poles	...	...	6,240	72,876	...	
	Miscellaneous poles	...	...	9	150	...	
	Sál sleepers	...	...	1,605	2,407	...	
	Mongrus	...	...	2	...	...	
	Planks	...	...	1	...	14,648	90,109
GONDA DIVISION.	Sál pieces	...	...	363	1,000	...	
	Asaina	...	...	19	95	...	
	Sál off-cuts	...	...	509	254	...	
	Jamun logs	...	...	27	108	...	
	Jamun off-cuts	...	...	450	225	...	
	Dhao logs	...	...	15	60	...	
	Sál poles	...	...	634	687	...	
	Mahua logs	...	...	132	1,446	...	
	Dhao axles	...	...	184	92	...	
	Sál beams	...	...	4	28	...	
	Firewood	...	Mds.	1,484	...	2,337	3,995
	Minor produce	...	Mds.	2,124	...	3,608	mds.

DATED NAINI TAL:
The 15th August, 1889.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

Form No. 57.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

ABSTRACT SHOWING THE VALUE OF TIMBER AND OTHER PRODUCE AT SALE DEPÔTS FOR 1888-89.

Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favor of the year.	Against the year.	
1.—*Reserved Forests timber.*			Rs.			Rs.	Rs.	Rs.	
Logs and pieces	1,572	74,741	37,370	438	24,828	16,838	...	...	
Sleepers and scantlings	57,325	60,179	60,179	27,323 Mds.278	36,080	33,779	...	...	
Poles and saplings	433	529	110	406	3,500	190	...	...	
Offcuts, slabs and pieces { Number ...	3,201	2,020	1,600	8,114	1,742	...	...	...	
Offcuts, slabs and pieces { Maunds ...	141	...	...	12,847	...	7,187	...	...	
Canoes and boats	19	...	3,800	8	...	800	...	...	
Drift collections	1,146	9,634	4,408	488	3,710	853	...	...	
Total, timber ... { Number...	63,696	1,47,103	1,07,467	36,777	69,860	59,647	...	...	
Total, timber ... { Maunds...	141			13,125					
Total, Firewood... ...	1,03,080	...	20,616	34,648	...	6,240	...	...	
GRAND TOTAL... { Number ...	63,696	1,47,103	1,28,083	36,777	69,860	65,887	...	62,196	
GRAND TOTAL... { Maunds ...	1,03,221			47,773					

Form No. 57A.

Abstract showing the value of timber and other produce in Forest Depôts other than Sale Depôts for the year 1888-89.

1.—*Reserved Forests.*								
Logs	9,761	3,56,291	1,33,609	8,626	3,47,105	1,97,031	...	...
Sleepers and scantlings ...	1,07,769	1,59,435	1,19,575	1,15,659	1,59,096	1,59,096	...	...
Poles and saplings	17,572	92,382	3,514	14,429	84,805	16,960	..	...
Offcuts, slabs, &c. ... { Number ...	3,47,116	6,46,592	20,412	3,36,023	6,33,556	18,802	...	...
Offcuts, slabs, &c. ... { Maunds ...	...	...	...	...	...	...	...	...
Boats and canoes	563	...	20,125	598	...	20,925	...	...
Drift collections	132	477 Mds. 1	100 ...	1,320 Mds. 38	6,073	3,000	...	...
Total, timber ... { Number ..	4,82,913	12,55,177	2,97,335	4,76,655	12,30,635	4,15,814	...	...
Total, timber ... { Maunds ...	...	1	...	38	...	...	...	...
Firewood ... Maunds ...	56,090	...	5,609	30,955	...	3,600	...	...
Charcoal ... Maunds ...	...	...	...	131	...	65	...	...
Total, firewood and charcoal, Maunds,	56,090	...	5,609	31,086	...	3,665	...	...
Minor produce ... { Maunds ...	1,953	...	500	2,218	...	1,428	...	...
Minor produce ... { Number...	5	...		1	...	...	...	...
Total ... { Maunds ...	1,953	...	500	2,218	...	...	...	...
Total ... { Number...	5	...		1	...	1,428	...	...
GRAND TOTAL ... { Number...	4,82,918	12,55,177	3,03,444	4,76,656	12,30,635	4,20,907	1,17,463	...
GRAND TOTAL ... { Maunds ...	58,043			33,342				
ABSTRACT OF FORMS Nos. 57 AND 57A.								
Timber ... { Maunds ...	...	...	...	38	13,00,495	4,75,461	...	...
Timber ... { Number...	5,46,609	14,02,280	4,04,802	5,13,432				
Firewood and charcoal Maunds ...	1,59,170	...	26,225	65,772	...	9,905	...	...
Minor produce ... { Number .	5	...	500	1	...	1,428	...	...
Minor produce ... { Maunds...	1,953	...		2,218	...			
Total ... { Number...	5,46,614	14,02,280	4,31,527	5,13,433	13,00,495	4,86,794	55,267	...
Total ... { Maunds ...	1,61,123			81,115				

NAINI TAL :
The 15th August, 1889.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. & Oudh Circle.

Form No. 57B.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

ABSTRACT SHOWING THE VALUE OF LIVE AND DEAD STOCK FOR THE YEAR 1888-89—(*continued*).

Description of live and dead stock.	On hand at the commencement of the year.		On hand at the close of the year.		Difference in value.		Remarks.
	Number.	Value.	Number.	Value.	In favor of the year.	Against the year.	
Direction Division.		Rs.		Rs.	Rs.	Rs.	
Dead Stock.							
3 Tools	1	1	1	1			
4 Office furniture	64	276	64	262			
5 Tents and equipages	5	210	5	200			
7 Miscellaneous	4	3	4	3			
Total ...	74	490	74	466	...	24	
Pilibhit Division.							
Live Stock.							
Elephant	1	1,500	1	1,500			
Bullocks	4	80	...	...			
Dead Stock.							
1 Surveying and other instruments ...	44	14	45	16			
2 Machinery	2	25	2	25			
3 Tools	416	300	423	303			
4 Office furniture	14	70	14	62			
5 Tents and equipages	6	70	3	18			
7 Miscellaneous	501	900	480	895			
Country carts	2	50	...	...			
Buildings	8	8,000	8	8,000			
Total ...	998	11,009	976	10,819	...	190	
Bhira Sub-Division.							
Live Stock.							
Bullocks	2	80	5	150			
Dead Stock.							
1 Surveying and other instruments ...	55	119	110	110			
2 Machinery	2	526	2	448			
3 Tools	141	215	155	248			
4 Office furniture	54	114	68	122			
5 Tents and equipages	4	190	4	114			
6 Building materials, small stores and house fittings.	271	466	316	480			
7 Miscellaneous	92	145	200	160			
Country carts	2	50	2	30			
Buildings	8	10,000	11	9,860			
Total ...	631	11,905	873	11,722	...	183	
Kheri Division.							
Live Stock.							
Elephants	2	3,800	2	3,800			
Bullocks	1	27	2	95			
Buffaloes	2	16	1	8			
Dead Stock.							
1 Surveying and other instruments ...	32	906	32	906			
3 Tools	2,507	1,840	2,491	1,843			
4 Office furniture	306	947	276	943			
5 Tents and equipages	13	907	17	942			
6 Building materials, small stores and house fittings.	3,707	1,492	1,423	1,752			
7 Miscellaneous	1,020	1,269	985	1,009			
Country carts	2	38	2	38			
Buildings	12	35,145	12	35,145			
Total ...	7,604	46,887	5,243	46,481	94	...	

Form No. 57B.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

ABSTRACT SHOWING THE VALUE OF LIVE AND DEAD STOCK FOR THE YEAR 1888-89—(*continued*).

Description of live and dead stock.	On hand at the commencement of the year.		On hand at the close of the year.		Difference in value.		Remarks.
	Number.	Value.	Number.	Value.	In favor of the year.	Against the year.	
		Rs.		Rs.	Rs.	Rs.	
Bahramghat Division.							
Live Stock.							
Buffaloes	9	90	9	90			
Dead Stock.							
1 Surveying and other instruments ...	49	115	49	121			
2 Machinery	51	39,000	51	39,395			
3 Tools	810	2,700	859	3,519			
4 Office furniture	71	450	71	469			
6 Building materials, small stores and house fittings.	73	60	73	67			
7 Miscellaneous	...	630	...	613			
Timber transport carts	2	200	2	250			
Country carts	10	120	10	125			
Buildings	2	9,500	2	9,500			
Total ...	1,077	52,865	1,126	54,149	1,284	...	
Bahraich Division.							
Live Stock.							
Elephant	1	2,600	1	2,600			
Dead Stock.							
1 Surveying and other instruments ...	86	141	86	141			
3 Tools	1,631	893	1,631	893			
4 Office furniture	265	1,060	285	1,111			
5 Tents	5	200	6	489			
6 Building materials, small stores and house fittings.	47	40	47	40			
7 Miscellaneous	278	460	313	494			
Buildings	32	41,500	32	41,500			
Total ...	2,345	46,894	2,401	47,268	374	...	
Gonda Division.							
Live Stock.							
Elephant	...	...	...	...			
Buffaloes	...	...	...	...			
Dead Stock.							
1 Surveying and other instruments ...	17	76	19	85			
3 Tools	331	127	350	232			
4 Office furniture	101	348	131	488			
5 Tents and equipages	4	500	6	525			
6 Building materials, small stores and house fittings.	33	15	23	18			
7 Miscellaneous	11	15	33	58			
Buildings	2	4,000	3	6,500			
Total ...	499	5,081	565	7,906	2,825	...	

Form No. 57B.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

ABSTRACT SHOWING THE VALUE OF LIVE AND DEAD STOCK FOR THE YEAR 1888-89—(*continued*).

Description of live and dead stock.	On hand at the commencement of the year.		On hand at the close of the year.		Difference in value.		Remarks.
	Number.	Value.	Number.	Value.	In favor of the year.	Against the year.	
Gorakhpur Division.		Rs.		Rs.	Rs.	Rs.	
Live Stock.							
Elephant	1	1,000	1	1,000			
Dead Stock.							
1 Surveying instruments	71	190	83	247			
2 Machinery	1	140	1	150			
3 Tools	284	421	296	481			
4 Office furniture	50,691	1,564	50,692	1,567			
5 Tents and equipages	5	190	10	563			
7 Miscellaneous	129	200	129	209			
Buildings	10	10,000	10	10,500			
Total ...	51,192	13,705	51,222	14,717	1,012	...	
GRAND TOTAL ...	64,420	1,88,336	62,480	1,93,528	5,192	...	
Abstract of the Circle.							
Live Stock.							
Elephants	5	8,900	5	8,900			
Bullocks	7	187	7	245			
Buffaloes	11	106	10	98			
	23	9,193	22	9,243	50	...	
Dead Stock.							
1 Surveying and other instruments ...	354	1,561	424	1,626			
2 Machinery	56	39,691	56	40,018			
3 Tools	6,121	6,497	6,206	7,520			
4 Office furniture	51,566	4,829	51,601	5,024			
5 Tents and equipages	42	2,267	51	2,851			
6 Buildings materials, small stores and house fittings.	4,131	2,073	1,882	2,357			
7 Miscellaneous	2,035	3,622	2,144	3,441			
Timber transport carts	2	200	2	250			
Country carts	16	258	14	193			
Buildings	74	1,18,145	78	1,21,005			
Total ...	64,397	1,79,143	62,458	1,84,285	5,142	...	
GRAND TOTAL ...	64,420	1,88,336	62,480	1,93,528	5,192	...	

NAINI TAL:
Dated the 15th August, 1889.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. & Oudh Circle.

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE. **Form No. 58.**

SUMMARY OF EXPENDITURE OF THE DIFFERENT DIVISIONS DURING 1888-89.

Budget heads.	Direction.	Kheri Division.	Bhira Sub-Division.	Bahramghát Division.	Bahraich Division.	Gonda Division.	Gorakhpur Division.	Pilibhít Division.	Total.
A.—CONSERVANCY AND WORKS.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—									
a. Timber	...	71,822 9 2	29 8 6	24,069 11 0	1,644 6 11	6 12 0	3,451 1 2	190 12 1	1,01,214 12 10
b. Firewood and charcoal	...	...	5,267 3 8	...	1,724 11 4	936 15 2	3,465 7 11	1,099 3 5	12,493 9 6
c. Bamboos	...	...	...	...	...	...	18 6 0	...	18 6 0
d. Sandal-wood...	...	...	...	...	...	...	...	...	...
e. Grass and other minor produce	...	...	2,772 0 2	...	3,841 9 9	2,134 14 3	...	84 0 3	8,832 8 5
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS.	...	1,666 9 3	2,739 2 7	...	1,802 5 5	2,131 3 2	1,811 11 9	3,617 6 8	13,768 6 10
III.—DRIFT AND WAIF WOOD AND CONFISCATED FOREST PRODUCE.	...	...	...	1,618 14 1	...	90 13 0	3,903 12 0	...	5,613 7 1
IV.—REVENUE FROM FORESTS NOT MANAGED BY GOVERNMENT—									
a. Duty on foreign timber and other forest produce,	...	...	...	...	...	...	...	...	...
b. Revenue from shared and private forests ...	...	...	...	...	...	...	...	...	...
V.—RENT OF LEASED FORESTS AND PAYMENTS TO SHAREHOLDERS IN FORESTS MANAGED BY GOVERNMENT.	...	...	...	...	...	...	...	...	...
VI.—LIVE STOCK, STORES, TOOLS AND PLANT—									
a. Purchase of cattle	...	95 0 0	...	...	...	...	...	..	95 0 0
b. Feed and keep of cattle	...	1,498 3 5	34 10 2	581 0 0	609 15 8	34 9 6	564 3 10	533 14 10	3,856 9 5
c. Purchase of stores, tools and plant ...	...	264 0 6	188 11 2	784 5 5	622 13 0	180 5 7	475 10 6	92 7 0	2,908 5 2
VII.—COMMUNICATIONS AND BUILDINGS—									
a. Roads and bridges	...	8,653 9 4	1,593 15 6	199 7 4	4,523 12 10	667 0 2	306 5 9	549 5 0	16,493 8 1
b. Buildings	...	2,785 2 7	623 0 0	218 0 1	1,237 6 3	5,314 15 1	1,787 5 7	349 14 4	12,315 11 11
c. Other works...	...	246 12 4	401 3 0	10 0 0	221 14 6	167 9 9	2 0 0	22 15 6	1,072 7 1
VIII.—DEMARCATION, IMPROVEMENT AND EXTENSION OF FORESTS—									
a. Demarcation	...	199 0 3	53 4 6	...	774 11 5	130 6 11	125 14 1	282 7 6	1,565 12 9
b. Compensation for land and rights	...	...	...	...	...	...	...	...	...
c. Surveys and working plans	...	1,220 0 0	...	...	...	49 11 0	6,406 6 11	...	7,676 1 11
d. Sowing and planting	...	196 12 3	25 10 4	...	...	2 3 3	2,277 11 0	...	2,502 4 10
e. Protection from fire	...	4,811 10 6	1,489 11 0	...	2,663 10 5	378 9 0	1,519 6 1	1,801 4 7	12,664 3 7
f. Other works	...	...	166 10 6	...	877 14 1	253 2 9	3,178 7 1	10 8 0	4,486 10 5

IX.—Miscellaneous—										
a. Refunds	...	...	...	136 6 9	...	68 0 0	...	...	204 6 9
b. Law charges...	...	52 1 0	14 0 0	...	...	0 4 0	541 11 4	8 0 0	616 0 4
c. Other charges	...	2,661 11 0	150 14 0	43 14 10	7 14 3	165 3 9	40 12 3	124 15 3	3,195 5 4
Total A.—Conservancy and Works ...	...	96,173 1 10	15,549 9 1	27,661 11 6	20,553 1 10	12,712 10 4	29,876 5 3	8,767 2 5	2,11,293 10 3
B.—ESTABLISHMENT.									
I.—Salaries—									
a. Conservators	18,000 0 0	...	...	...	...	...	...	...	18,000 0 0
b. Superior officers	2,516 2 0	13,432 4 1	...	3,000 0 0	5,682 9 3	2,400 0 0	8,198 10 9	10,800 0 0	46,029 10 1
c. Subordinate forest and depôt establishments ...	...	4,628 6 5	1,412 13 1	126 3 7	2,234 14 0	1,845 8 2	4,317 10 7	673 10 2	15,239 2 0
d. Office establishments	2,400 0 0	1,793 3 4	38 11 5	540 0 0	1,162 0 0	597 4 0	106 10 10	713 0 0	7,350 13 7
e. Deputation and special allowances	...	25 0 0	...	...	...	...	...	...	25 0 0
II.—Travelling Allowances—									
a. Conservators	1,480 11 0	...	...	...	...	...	...	...	1,480 11 0
b. Superior officers	...	2,363 14 0	...	846 12 6	1,161 8 0	645 13 10	2,416 2 6	1,190 11 6	8,124 14 4
c. Subordinate forest and depôt establishments ...	...	1,110 8 2	329 11 11	...	223 14 6	311 10 10	128 15 6	151 1 4	2,255 14 3
d. Office establishments	667 2 1	514 12 0	25 5 5	6 8 0	269 6 11	64 0 3	...	300 3 10	1,847 6 6
III.—Contingencies—									
a. Stationery	2 4 0	19 15 9	12 0 5	17 0 0	15 14 0	0 7 0	3 4 0	8 6 9	79 3 11
b. Carriage of tents and records	324 15 5	126 2 0	91 8 6	...	256 14 6	152 11 4	37 4 6	97 7 6	1,086 15 9
c. Rents, rates and taxes	211 0 0	...	103 0 0	...	0 8 6	105 7 0	100 0 0	104 0 0	623 15 6
d. Pay of police guards	...	207 0 3	...	167 5 1	120 0 0	174 13 4	56 12 4	125 1 9	851 0 9
e. Official postage	182 7 6	83 2 6	60 0 0	99 13 6	72 10 6	104 1 6	136 6 0	41 8 6	780 2 0
f. Sundries	252 1 2	531 11 11	75 1 9	65 7 6	447 13 8	163 6 7	158 3 2	116 11 1	1,810 8 10
Total B.—Establishments ...	26,036 11 2	24,836 0 5	2,148 4 6	4,369 2 2	11,648 1 10	6,565 3 10	15,660 0 2	14,321 14 5	1,05,585 6 6
Grand Total of Expenditure ...	26,036 11 2	1,21,009 2 3	17,697 13 7	32,030 13 8	32,201 3 8	19,277 14 2	45,536 5 5	23,089 0 10	3,16,879 0 9

Calcutta :
The 1st June, 1889.

JAMES TAYLOR,
Assistant Comptroller-General (Forests).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

SUMMARY OF REVENUE OF THE DIFFERENT DIVISIONS DURING 1888-89.

Budget-Heads.	Direction.	Kheri Division.	Bhira Sub-Division.	Bahramghát Division.	Bahraich Division.	Gonda Division.	Gorakhpur Division.	Pilibhít Division.	Total.
RECEIPTS.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—									
a. Timber	...	18,116 5 1	375 10 5	2,39,757 0 8	8,444 12 6	1,490 12 9	8,805 1 11	32 1 3	2,77,021 12 7
b. Firewood and charcoal	...	...	4,817 14 0	...	10,841 9 9	3,923 10 2	11,567 2 11	1,837 5 9	32,987 10 7
c. Bamboos	...	...	...	...	...	...	...	...	...
d. Sandal-wood	...	...	...	...	...	...	...	...	...
e. Grass and other minor produce	...	...	5,845 14 4	...	502 0 0	4,618 2 0	262 12 0	45 0 0	11,273 12 4
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS—									
a. Timber	...	18,358 0 5	444 5 3	...	72,232 0 5	8,243 8 6	2,591 14 11	1,291 9 9	1,03,161 7 3
b. Firewood and charcoal	...	397 12 0	497 6 9	...	1,371 6 0	2,161 9 2	2,649 13 4	1,313 9 9	8,391 9 0
c. Bamboos	...	...	...	...	176 10 0	...	9 6 0	...	186 0 0
d. Grazing and fodder grass	...	10,989 0 4	1,924 9 9	...	15,912 8 2	7,092 3 7	9,021 5 3	1,241 15 0	46,181 10 1
e. Other minor produce	...	10,316 11 6	162 2 8	...	5,564 15 6	6,385 9 10	15,480 6 9	1,578 0 9	39,487 15 0
III.—DRIFT AND WAIF WOOD AND CONFISCATED FOREST PRODUCE.	...	104 1 0	25 0 0	3,250 6 6	36 10 0	765 1 11	6,391 15 4	15 0 0	10,588 2 9
IV.—REVENUE FROM FORESTS NOT MANAGED BY GOVERNMENT—									
a. Duty on foreign timber and other forest produce	...	...	...	...	...	...	...	...	...
b. Revenue from shared and private forests ...	...	...	...	...	...	...	...	...	...
V.—MISCELLANEOUS—									
a. Fines and forfeitures	...	2 0 0	118 2 0	...	308 6 9	...	458 0 0	30 4 0	916 12 9
b. Refunds	...	16 7 0	1 8 0	60 0 0	1 5 4	27 1 4	...	...	106 5 8
c. Other sources	...	4,198 9 8	984 12 6	672 15 3	375 8 0	371 10 2	2,573 5 11	174 2 0	9,350 15 6
TOTAL, RECEIPTS ...	...	62,498 15 0	15,197 5 8	2,43,740 6 5	1,15,767 12 5	35,079 5 5	59,811 4 4	7,559 0 3	5,39,654 1 6

CALCUTTA:
The 1st June, 1889.

JAMES TAYLOR,
Assistant Comptroller-General (Forests).

FOREST DEPARTMENT, NORTH-WESTERN PROVINCES AND OUDH, OUDH CIRCLE.

ACCOUNT CURRENT FOR THE YEAR 1888-89.

Dr. **Cr.**

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To Cash Balance	...	...	*By Expenditure as per Annual Summary, Form No.* 58 ...	...	3,16,879 0 9
„ *VIII.—Assessed Taxes—*					
Income Tax—Deductions from salaries	...	1,824 0 9	„ *Deposits*	...	1,091 10 6
„ *Revenue as per Annual Summary, Form No.* 58	...	5,39,654 1 6	„ *Forest Cash Remittances, Local—*		
„ *Service Funds—*			Remittances to Treasuries	4,47,610 8 10	...
Civil Fund—Ordinary, (Bengal)	...	...	Inter-Divisional Transfers	43,637 13 4	...
Do. Additional, (do.)	...	...			4,91,239 6 2
Military Fund (Bengal)	...	...			
Do. (Madras)	...	...	„ *Advances Recoverable*	...	2,75,435 7 10
Do. Orphan Fund (Bengal)	...	...	„ *Suspense*	...	77 0 8
Uncovenanted Service Family Pension Fund (Bengal) ...	465 13 0	...	„ *Account Current (other Governments)—*		
General Family Pension Fund	...	...	Remittances to the Government of India	61 12 0	...
Hindu Family Annuity Fund	...	465 13 0	Ditto ditto Bengal	3,290 13 0	...
					3,352 9 0
„ *Deposits*	...	1,094 12 6	„ *Inter-Departmental Transfers—*		
„ *Forest Cash Remittances, Local—*			Public Works Department (State Railway)	...	...
Forest cheques drawn	2,82,751 7 5	...		Rs. a. p.	
Inter-Divisional Transfers	59,846 11 7	3,42,598 3 0	North-Western Railway ...	12,108 11 5	...
			Lucknow, Sitapur and Seramau Railway	1,940 11 3	...
„ *Advances recoverable*	...	2,69,646 3 5	Rajputana and Malwa Railway	16,630 11 5	...
„ *Suspense*	...	156 2 9	Indian Midland Railway ...	2,852 1 4	...
„ *Account Current (other Governments)—*			Provincial Railway ...	136 6 9	...
Remittances from Government of India	1,220 0 0	...			33,668 10 2
	1,535 3 10	...	Public Works Department (other Branches)		46,470 13 8
Ditto ditto Bengal	3,236 14 7	...			80,139 7 10
Ditto ditto Central Provinces ...	2,498 5 11				
„ *Inter-Departmental Transfers—*		8,490 8 4	Military Department	...	155 0 0
Public Works Department (State Railway)	...	...	Bengal	...	...
Lucknow, Sitapur and Seraman Railway	224 6 9	...	Civil Department	...	...
Public Works Department (other Branches)	206 1 0	430 7 9	Jail	2,400 9 6	...
			Miscellaneous	120 7 3	...
Military Department, Bengal	...	26 3 0			2,521 0 9
Civil Department—					
Jail	...	...			
Mathematical Instrument Department	54 11 0	...			
Miscellaneous	155 0 0	...	Cash Balance	...	115 13 3
Survey of India Department	6,410 5 9	6,620 0 9			
Total	...	11,71,006 8 9		...	11,71,006 8 9

CALCUTTA :
The 1st June, 1889.

JAMES TAYLOR,
Assistant Comptroller-General (Forests).

Form No. 60.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

REVENUE RECEIVED AND OUTSTANDINGS ON ACCOUNT OF REVENUE DURING 1888-89.

Division.	Particular.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Pilibhít ...	Timber, grazing and other forest produce, &c.	74 0 0	7,677 15 4	7,751 15 4	7,559 0 3	192 15 1
Bhira ...	Ditto ditto ...	343 0 6	16,914 9 1	17,257 9 7	15,197 5 8	2,060 3 11
Kheri ...	Ditto ditto ...	4,726 0 9	61,099 1 3	65,825 2 0	62,498 15 0	3,326 3 0
Bahramghát ...	Ditto ditto ...	...	2,43,740 6 5	2,43,740 6 5	2,43,740 6 5	...
Bahraich ...	Ditto ditto ...	2,823 9 9	1,15,380 2 0	1,18,203 11 9	1,15,767 12 5	2,435 15 4
Gonda ...	Ditto ditto ...	611 0 0	34,629 8 5	35,240 8 5	35,079 5 5	161 3 0
Gorakhpur ...	Ditto ditto ...	3,498 13 6	59,670 5 10	63,169 3 4	59,811 4 4	3,357 15 0
	Total ...	12,076 8 6	5,39,112 0 4	5,51,188 8 10	5,39,654 1 6	11,534 7 4

Form No. 61.

OUTSTANDINGS AND LIABILITIES ON ACCOUNT OF CONTRACTORS AND DISBURSERS FOR 1888-89.

Division.	Department Debtor.			Department Creditor.			Balance due.	
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Direction ...	...	1,825 11 2	1,825 11 2	243 14 5	1,748 2 8	1,992 1 1	166 5 11	...
Kheri ...	627 0 9	1,43,707 11 4	1,44,334 12 1	27,535 7 8	1,39,243 8 11	1,66,779 0 7	22,457 0 9	12 12 3
Bhira ...	...	25,494 15 9	25,494 15 9	546 3 2	28,412 8 1	28,958 11 3	3,463 11 6	...
Bahramghát, ...	...	4,507 13 5	4,507 13 5	449 12 11	4,880 8 5	5,330 5 4	822 7 11	...
Bahraich ...	1 7 11	33,167 13 8	33,169 5 7	3,811 4 6	33,752 5 9	37,563 10 3	4,394 10 5	0 5 9
Gonda ...	...	20,101 3 8	20,101 3 8	2,517 9 2	21,974 10 5	24,492 3 7	4,390 15 11	...
Gorakhpur, ...	...	24,820 15 6	24,820 15 6	5,844 11 10	28,995 8 1	34,840 3 11	10,019 4 5	...
Pilibhít ...	...	16,019 14 11	16,019 14 11	1,033 14 2	16,428 3 6	17,462 1 8	1,442 2 9	...
Total ...	628 8 8	2,69,646 3 5	2,70,274 12 1	41,982 13 10	2,75,435 7 10	3,17,418 5 8	47,156 11 7	13 2 0

Form No. 62.

FINANCIAL RESULTS OF THE YEAR, 1888-89.

Division.	Timber and other produce removed from the forests by Government agency.		Other Revenue.		Formation, protection and improvement of forests	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Direction ...	Charges proportionately distributed.							
Pilibhit ...	1,914	1,374	5,645	13,004	11,544	7,559	25,982	
Bhira	11,040	8,069	4,157	6,762	5,760	15,197	20,591	
Kheri	18,116	1,22,372	44,383	17,202	22,055	3,06,240	1,61,719	
Bahramghát ...	2,43,741							
Bahraich ...	19,788	7,211	95,980	14,130	16,646	1,15,763	37,987	
Gonda	10,033	3,079	25,046	10,248	8,844	35,079	22,171	
Gorakhpur ...	20,635	6,935	39,176	16,850	24,644	59,811	48,429	
Total ...	3,25,267	1,49,040	2,14,387	78,346	89,493	5,39,654	3,16,879	Net surplus 2,22,775.

NAINI TAL: *The 15th August*, 1889.

C. J. PONSONBY,

Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

Appendix I.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

SUMMARY SHOWING TOTAL YIELD OF TIMBER DURING THE YEAR 1888-89.

Description of trees.	Selection fellings, *i.e.*, felling of mature trees.							
	By Government agency.		By contractors.		By villagers.		Total.	
	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.
Sál	2,500	214,730	748	30,785	...	...	3,248	245,515
Assina	8	10,847	31	1,584	...	...	39	12,431
Sissu	...	...	...	...	...	...	...	...
Haldu or Tikoo	...	107	...	...	...	...	...	107
Dhao	...	...	...	...	...	...	...	...
Khair	...	...	...	...	...	...	...	...
Jamun	...	...	30	1,607	...	...	30	1,607
Mahua	...	...	...	...	...	...	...	...
Kusum	...	...	...	...	...	...	...	...
Miscellaneous	...	...	...	...	...	...	...	...
Mixed fuel	...	...	...	...	...	...	...	...
Drift	...	...	...	...	...	...	...	...
Total 1888-89 ...	2,508	225,684	809	33,976	...	...	3,317	259,660
Total 1887-88 ...	4,907	346,638	660	17,728	1	...	5,568	364,366
Difference	−2,399	−120,954	+149	+16,248	−1	...	−2,251	−104,706

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FOREST DEPARTMENT, NORTH-WESTERN

SUMMARY, SHOWING TOTAL YIELD OF

Description of trees.	Thinnings.							
	By Government agency.		By contractors.		By villagers.		Total.	
	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.
Sál	10,362	49,508	381	3,812	...	...	10,743	53,320
Asaina	351	4,794	...	...	...	...	351	4,794
Sisan	...	...	...	...	...	...	...	...
Haldu or Tikoe	...	...	...	...	...	...	...	...
Dhao	...	...	...	...	...	...	...	...
Khair	...	...	...	...	...	...	...	...
Jamun	...	...	...	...	...	...	...	...
Mahua	156	1,416	...	...	...	...	156	1,416
Kusum	...	...	...	...	...	...	...	...
Miscellaneous	371	1,461	970	9,772	...	...	1,341	11,233
Mixed fuel	175,348	275,348	98,390	98,390	...	...	273,738	373,738
Drift	...	...	...	...	...	...	...	...
Total ... 1888-89 ...	186,588	332,527	99,741	111,974	...	...	286,329	444,501
Total ... 1887-88 ...	130,594	312,954	...	...	...	...	130,594	312,954
Difference	+55,994	+19,573	+99,741	+111,974	...	...	+155,735	+131,547

NAINI TAL:
The 15th August, 1889.

dix I.

PROVINCES AND OUDH, OUDH CIRCLE.

TIMBER DURING THE YEAR 1888-89—(*concluded*).

Clearance.								Grand Total.	
By Government agency.		By contractors.		By villagers.		Total.			
Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.
674	1,598	27,409	198,531	271	12,906	28,354	213,041	42,345	511,876
33	1,519	11,892	99,749	10	347	11,935	101,615	12,325	118,840
2	202	360	4,436	...	318	362	4,956	362	4,956
...	...	63	2,976	...	...	63	2,976	63	3,083
...	...	150	6,550	...	...	150	6,550	150	6,550
...	...	...	92	...	5	...	97	...	97
...	...	18	189	...	...	18	189	48	1,796
...	...	...	468	...	...	...	468	156	1,884
...	...	2,639	26,390	...	...	2,639	26,390	2,639	26,390
173	296	40,000	139,004	363,887	1,564,458	404,060	1,703,758	405,401	1,714,991
670	1,606	292,000	722,244	169,000	569,092	461,670	1,292,942	735,408	1,666,680
7,124	71,314	...	488	...	...	7,124	71,802	7,124	71,802
8,676	76,535	374,531	1,201,123	533,168	2,147,126	916,375	3,424,784	1,206,021	4,128,945
2,241	56,142	126,250	1,584,137	1,321,247	3,497,140	1,449,738	5,137,419	1,585,900	5,814,759
+6,435	+20,393	+248,281	+383,014	−788,079	−1,350,014	−533,363	−1,712,635	−379,879	−1,685,814

C. J. PONSONBY,

Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

YIELD IN PRODUCE.

Description of produce.	1887-88.		1888-89.		Difference.				Remarks.
					More.		Less.		
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
		Rs.		Rs.		Rs.		Rs.	
Timber, ... Cubic feet ...	3,240,990	505,063	2,462,265	410,377	...	...	778,725	94,686	Decrease is due to less timber felled under Selection fellings and because no trees were felled for Sleepers, &c.
Firewood and charcoal	2,573,769	40,000	1,666,680	36,000	...	...	907,089	4,000	Owing to large stock of firewood in hand, less firewood was cut and no thinnings were done in the Nishangara block of the Motipur range, Bahraich Division.
Bamboos scores	...	...	132	186	132	186	...	...	Increase is due to sale of bamboos in Bahraich and Gorakhpur.
Minor produce	...	65,703	...	63,234	...	...	...	2,469	Decrease, less demand.
Grazing dues	...	66,899	...	48,901	...	...	...	17,998	Decrease, owing to difference of calculation in the free grazing to right-holders.
Total ...	5,814,759	677,665	4,129,077	558,698	...	...	1,685,682	118,967	

NAINI TAL:
The 25th August, 1889.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. Provinces, and Oudh, Oudh Circle.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

STATEMENT SHOWING DISPOSAL OF PRODUCE COLLECTED BY GOVERNMENT AGENCY FOR 1888-89 COMPARED WITH RESULTS OF 1887-88.

Description of produce.	Sold Locally, *i.e.*, not brought to Depôt.				Depôt transaction.											
					Balance in hand at commencement of the year.				Brought to Depôt.				Total received in Depôt.			
	1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Timber, Cubic feet ..	11,932	10,275	15,223 80	4,173	1,433,695	5,75,317	1,402,280 142	4,04,802	1,064,435	4,70,989	831,251 93,724	6,15,625	2,498,130	10,46,306	2,233,531 93,866	10,20,427
Firewood, Maunds ...	20	1	33,967	10,646	18,240	725	159,170	26,225	162,771	37,653	66,132	20,226	181,017	38,380	225,302	46,451
Charcoal „ ...	...	...	10	1	14	7	...	...	...	...	131	65	14	7	131	65
Minor produce „ ..	868	434	13,837	2,437	3,815	1,555	1,956	500	9,264	4,524	9,754	8,877	13,079	6,079	11,710	9,377
Total ... Cubic feet ...	11,932	10,709	15,223	17,257	1,433,695	5,77,604	1,402,280	4,31,527	1,064,435	5,13,168	831,251	6,44,793	2,498,130	10,90,772	223,353	10,76,320
Total ... Maunds ...	898		47,894		22,075		161,268		172,035		169,741		194,110		331,009	

Description of produce	Depôt transaction.															
	Removed by purchasers from Depôt.				Converted in Depôt.				Lost or written off.				Used by Department.			
	1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Timber Cubic feet...	628,871	3,04,955	379,114 35,989	2,68,000	115,929	84,129	270,100	1,35,050	125,183 3,360	75,804 1,619	6,640	3,320	14,654	11,355	22,827 33,017	1,413
Firewood, Maunds	18,533	11,623	135,342	31,748	...	...	...	...	325	37	15,666	3,135	...	...	...	...
Charcoal „ ...	...	...	...	...	...	...	...	...	14	7	...	...	...	...	...	...
Minor produce „ ...	8,118	5,287	9,331	7,869	...	...	...	...	3,008	294	161	80	...	...	...	...
Total ... Cubic feet	628,871	3,21,862	379,114	3,07,623	115,929	84,129	270,100	1,35,050	128,543	77,761	6,640	6,533	14,654	11,355	22,827	11,413
Total ... Maunds ..	26,652		180,662		...				3,347		15,827		...		33,017	

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

Statement showing disposal of produce collected by Government Agency for 1888-89, *compared with results of* 1887-88—(concluded).

Description of produce.	Transferred to sale Depôt.				Total issued from Depôt.				Balance at close of the year.			
	1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Timber, cubic feet ...	207,854	1,65,641	254,355 11,734	1,27,177	1,095,850	6,41,504	933,036 80,740	5,44,966	1,402,280 mds. 145	4,04,802	1,300,495 13,125	*4,75,461
Firewood, maunds ...	2,988	500	8,654	1,730	21,847	12,168	159,602	36,611	1,59,170	26,225	65,641	9,840
Charcoal „ ...	...	...	...	...	...	...	...	...	..	...	131	65
Minor produce „ ...	...	...	...	...	11,126	5,579	9,492	7,949	1,953	500	2,218	1,428
Total ... Cubic feet ...	207,854	1,66,141	254,355	1,28,907	1,095,850	6,59,251	933,036	5,99,526	1,402,280	4,31,527	1,300,495	4,86,794
Maunds ...	2,988		20,388		32,973		249,894		161,268		81,115	

* The lower line of figures under this head represent, some half-wrought slabs, &c, given in maunds, Byramghát Depôt.

NAINI TAL:
The 15th August, 1889.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. P. and Oudh, Oudh Circle.

Appendix IV,

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

STATEMENT OF FOREST PRODUCE GIVEN FREE TO PRIVILEGED VILLAGERS DURING 1888-89.

Divisions.	Description of produce.		Number or quantity.	Cubic feet.	Amount. Rs.	a.	p.	Remarks.
Pilibhit.	Timber	Bullocks	37,605	188,235	25,511	0	0	
		Head loads	40					
		Numbers	57					
	Firewood	Bullocks	5,183	124,374	3,122	0	0	
		Head loads	276					
	Minor produce	Bullocks	9,294	...	...			
		Head loads	638	...	2,679	0	0	
		Grazing	...	...	1,693	0	0	
	Total	Bullocks	52,082	313,109	33,005	0	0	
		Head loads	954					
		Numbers	57					
		Grazing	...					
Bhiba.	Timber	Cart loads	716	54,240	367	0	0	
		Head loads	536	1,668	35	0	0	
		Numbers	6,994	14,775	657	0	0	
	Firewood	Cart loads	1,565	144,594	404	0	0	
		Head loads	540	2,430	8	0	0	
	Minor produce	Cart loads	1,705	...	567	0	0	
		Heads loads	1,053	...	39	0	0	
	Total	Cart loads	3,986	217,707	2,077	0	0	
		Head loads	2,129					
		Numbers	6,994					
Kheri.	Timber	Cart loads	9,631	221,699	10,216	0	0	
		Head loads	357		25	0	0	
		Numbers	468		196	0	0	
	Firewood	Cart loads	3,424	189,374	815	0	0	
		Head loads	226					
	Minor produce	Cart loads	15,776	...	5,672	0	0	
		Head loads	343	...	8	0	0	
		Grazing	7,408	...	1,027	0	0	
	Total	Cart loads	28,831	411,073	17,959	0	0	
		Head loads	926					
		Numbers	468					
		Grazing	7,408					
Bahraich.	Timber	Numbers	1,014,165	1,039,005	44,399	0	0	
	Firewood	Cart loads	24,840					
	Minor produce	Maunds	67,439					
	Total	Cart loads	24,840	1,039,005	44,399	0	0	
		Numbers	1,014,165					
		Maunds	67,437					
Gonda.	Timber	Cart loads	14,475	83,252	8,094	0	0	
		Head loads	5					
		Numbers	69,380					
	Firewood	Cart loads	1,528	82,980	498	0	0	
		Head loads	13,570					
	Minor produce	Cart loads	2,610	...	1,458	0	0	
		Head loads	9,900	...				
	Total	Cart loads	18,613	166,232	10,050	0	0	
		Head loads	12,415					
		Numbers	69,380					
	Grand Total	Cart loads	52,672	2,147,126	1,07,490	0	0	
		Bullocks	52,082					
		Head loads	16,424					
		Numbers	6,65,585					
		Grazing	7,408					
	Abstract of the Circle.							
	Timber		728,950	1,578,034	87,274	0	0	
	Firewood		27,554	569,092	5,024	0	0	
	Minor produce		1,08,758	...	12,472	0	0	
	Grazing		...	...	2,720	0	0	
	Grand Total		...	2,147,126	1,07,490	0	0	

NAINI TAL:
The 15th August, 1889.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. Provinces and Oudh, Oudh Circle.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

ABSTRACT SHOWING EXISTING ROADS AND FIRE LINES TO END OF MARCH, 1889.

Description.				Pilibhít.		Bhíra.		Kheri.		Bahraich.		Gonda.		Gorakhpur.		Total.		Remarks.
				Miles.	Furlongs.	Miles.	Furlongs.	Miles.	Furlongs.	Miles.	Furlongs.	Miles.	Furlongs.	Miles.	Furlongs.	Miles.	Furlongs.	
Main roads	100′	wide	... ...	...	...	...	...	...	...	...	...	9	2	...	...	9	2	
„ „	50′	„	... ...	...	...	...	...	...	...	...	...	...	...	7	...	7	...	
„ „	45′	„	... ...	...	...	...	...	...	...	23	1	...	...	...	...	23	1	
„ „	40′	„	... ...	...	...	...	...	...	...	...	...	25	...	...	...	25	...	
„ „	30′	„	... ...	...	...	6	4	...	...	51	3	40	...	13	5	114	4	
„ „	20 to 40′	„	... ...	...	...	23	...	...	...	...	...	...	...	...	...	23	...	
„ „	20′	„	... ...	...	...	...	...	17	4	32	1	12	6	8	...	70	3	
Cart „	18′	„	... ...	...	...	...	...	39	4	...	...	...	...	...	...	39	4	
„ „	15′	„	... ...	160	2	106	4½	213	6	235	2	47	...	30	5	793	3½	
Path „	10′	„	... ...	...	...	...	...	18	3	...	...	...	...	...	...	18	3	
„ „	8′	„	... ...	47	5½	32	4	...	...	...	...	...	...	...	...	80	1½	
Export „	6′	„	... ...	3	7	...	...	...	...	...	...	9	...	...	...	12	7	
	Inspection Paths.																	
Export roads	3′ and under	wide	... ...	...	...	54	¾	...	...	...	...	7	...	...	...	61	¾	
Total			... (1888-89,	211	0¾	222	5¼	289	1	344	7	149	...	59	2	1,277	6	
			(1887-88,	211	6¾	196	5¼	289	1	344	5	117	5¼	51	1	1,211	2¼	
New roads during			... 1888-89	...	...	26	...	...	...	...	2	32	2½	8	1	66	5¼	

NAINI TAL:
The 15th August, 1889.

C. J. PONSONBY,
Offg. Conservator of Forests,
N.-W. P. and Oudh, Oudh Circle.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

LIST OF BUILDINGS UP TO END OF 1888-89.

	Pilibhít.	Bhira.	Kheri.	Bahramghát	Bahraich.	Gonda.	Gorakhpur.	Total.	Remarks.
1st Class double storied rest-house	1	2	6	...	3	1	...	13	
1st Class single „ „	...	...	1	2	5	...	1	9	
2nd Class double „ „	...	...	5	...	...	1*	...	6	* Nearly completed.
2nd Class single „ „	...	...	...	...	...	...	8	8	
3rd Class double „ „	7	6	...	...	...	...	1	14	
3rd Class single „ „	...	...	...	...	9	2	...	11	
Total ...	8	8	12	2	17	4	10	61	
Total up to end of 1887-88 ...	8	8	12	2	17	3	10	60	
During 1888-89 ...	...	...	...	...	...	1	...	1	

NAINI TAL:
The 15th August, 1889.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. Provinces and Oudh, Oudh Circle.

Appendix VII.

FOREST DEPARTMENT, N.-W. PROVINCES AND OUDH, OUDH CIRCLE.

THE MAIN FACTS OF THE YEAR'S WORK MAY BE SUMMARIZED AS FOLLOWS, AS PER GOVERNMENT ORDER No. $\frac{642}{845\text{-}5}$, DATED 10TH OCTOBER, 1888.

			1888-89.	1887-88.	Increase.	Decrease.
1	Green trees felled	No.	1,206,021	1,485,900	...	279,879
2	Yield of above in timber and fuel	C ft.	1,428,945	5,814,759	...	1,685,814
3	Yield of timber including timber from dry trees ...	C. ft.	2,462,265	3,240,990	...	778,725
4	Value of above	Rs.	4,10,377	5,05,063	...	94,686
5	Yield of green timber	C. ft.	2,204,270	2,412,299	...	208,029
6	Value of above	Rs.	2,70,619	3,70,410	...	99,791
7	Yield of dry timber	C. ft.	257,995	828,691	...	570,696
8	Value of above	Rs.	1,39,758	1,34,653	...	5,106
9	Yield of green timber removed by Departmental agency.	C. ft.	357,792	412,212	...	54,420
10	Value of above	Rs.	1,28,168	2,44,869	...	1,16,701
11	Yield of green timber removed by exporters ...	C. ft.	397,908	180,236	217,672	...
12	Value of above	Rs.	66,401	41,537	24,864	...
13	Yield of green timber removed by free grantees and right-holders.	C. ft.	1,448,570	1,819,851	...	371,281
14	Value of above	Rs.	76,050	77,004	...	954
15	Yield of dry timber removed by exporters ...	C. ft.	186,409	247,645	...	6,136
16	Value of above	Rs.	1,28,531	1,32,594	...	4,063
17	Yield of dry timber removed by free grantees and right-holders.	C. ft.	129,464	581,046	...	451,582
18	Value of above	Rs.	11,227	9,050	2,177	...
19	Yield of firewood and charcoal	C. ft.	1,666,680	2,573,769	...	907,089
20	Value of above	Rs.	36,000	40,000	...	4,000
21	Yield of fuel removed by Departmental agency ...	C. ft.	276,954	286,034	...	9,081
22	Value of above	Rs.	20,226	23,108	...	3,082
23	Yield of fuel removed by exporters	C. ft.	820,634	1,191,487	...	370,853
24	Value of above	Rs.	10,750	12,006	...	1,256
25	Yield of fuel removed by free grantees and right-holders.	C. ft.	569,092	1,096,247	...	527,155
26	Value of above	Rs.	5,024	6,886	...	1,862
27	Timber sold by Departmental agency ...	C. ft.	379,114	628,871	...	249,757
28	Value of above	Rs.	2,68,006	3,04,952	...	36,946
29	Timber sold direct to purchasers	C. ft.	526,439	427,881	98,558	...
30	Value of above	Rs.	90,125	72,192	17,933	...
31	Fuel sold by Departmental agency	C. ft.	135,342	18,534	116,808	...
32	Value of above	Rs.	31,748	11,625	20,123	...
33	Fuel sold direct to purchasers	C. ft.	820,634	1,191,487	...	370,853
34	Value of above	C. ft.	10,143	9,870	273	...
35	Bamboos	(Scores)	132	...	132	...
36	Value of above	Rs.	186	...	186	...
37	Minor produce and grazing	,,	1,12,135	1,32,602	...	20,467
38	Value of other receipts	,,	10,374	11,032	...	658
39	Yield per square mile in cubic feet of timber and fuel	C. ft.	3,432	4,833	...	1,401
40	Value of above per square mile	Rs.	370	453	...	83
41	Gross receipts ditto	,,	449	357	92	...

NAINI TAL,
The 15th August, 1889.

C. J. PONSONBY,
Offg. Conservator of Forests, N.-W. Provinces and Oudh, Oudh Circle.

No. 76.

FROM

E. McA. MOIR, ESQ.,

OFFG. CONSERVATOR OF FORESTS, SCHOOL CIRCLE,

N.-W. PROVINCES AND OUDH,

To

THE SECY. TO GOVERNMENT, N.-W. P. AND OUDH,

REVENUE (FORESTS) DEPARTMENT.

Dated Dehra Dún, the 1st August, 1889.

SIR,

I HAVE the honor to submit the Annual Report for the School Circle, North-Western Provinces and Oudh, for the year 1888-89. The delay in submitting it is due to the breaking down of Lieutenant-Colonel F. Bailey's health when the report was about half completed, so that the compilation of the remainder was unexpectedly thrown on me in addition to my divisional duties.

I have the honor to be,

SIR,

Your most obedient servant,

E. McA. MOIR,

Offg. Conservator of Forests, School Circle,

N.-W. Provinces and Oudh.

SCHOOL CIRCLE REPORT.

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ERRATA.

Annual Progress Report of Forest Administration, School Circle, North-Western Provinces and Oudh, 1888-89.

Page 9, para. 25, line 3, *for* "Conservancy" *read* "Conservator."

„ 12, para. 32, line 13, *for* "hardly" *read* "hardy."

„ 17, para. 43, statement, column 6, against Jaunsár Division, 1888-89, *for* 10,000 *read* 10,031.

„ ditto ditto 8, ditto *for* 19,632 *read* 19,663.

„ ditto ditto 6, Grand Total for 1888-89, *for* 20,022 *read* 20,053.

„ ditto ditto 8, ditto *for* 2,46,860 *read* 2,46,891.

„ 20, para. 49, line 16, *for* land *read* hand.

„ 23, para. 58, statement, column 7, against Lálwála, 1888-89, *for* ९३ 6 *read* 396.

„ 30, para. 79, statement I, column 9, 1888-89, *for* 6,60,156, *read* 5,62,101.

„ 36, para. 90, line 2, *for* 79,472 *read* 79,542.

Appendix, page vi, column 8, against Dholkhand, *for* 16 *read* 15.

Ditto vii ditto Deogarh, *for* 408 *read* 108.

Ditto vii ditto Grand Total, *for* 6,407 *read* 6,507.

Ditto xi, column 9, against Bamsu, &c., *for* 301 *read* 401.

Ditto xvi, column 5, ditto Total, bamboos, Jaunsár Division, *for* 71,060 *read* 71,070.

Ditto ditto 11, ditto ditto ditto *for* 71,120 *read* 71,130.

Ditto ditto 5, ditto Grand Total, bamboos, *for* 19,36,750 *read* 19,36,760.

Ditto ditto 11, ditto ditto ditto, *for* 19,36,810 *read* 19,36,820.

Ditto xix, column 3, subhead "Received from the Forests, &c.," against Shikanjas and beams, *for* 523 *read* 8,523.

Ditto xxi, column 9, Total balances, against resin, *for* 1,374 *read* 13¼.

Ditto xxii, column 3, Abstract timber, against "Received from the Forests, &c.," *for* 3,47,475 *read* 2,47,475.

Ditto ditto 8, Abstract firewood, against "Removed by purchasers, &c.," *for* 32,10,561½ *read* 3,21,056½.

Ditto xxxi, Form 62, column 6, against Direction, *for* 754 *read* 7,540.

Ditto xxxiv, column 2, against "poles," *for* 1,15,117 *read* 37,445.

Ditto ditto ditto "saplings," *for* 54,055 *read* 14,064.

Ditto xxxv, total issued from depôt, under firewood, *for* 427,984 *read* 247,984.

Ditto xxxvi, column 11, against Grand Total, *for* 2,50,993 *read* 2,50,693.

Ditto xxxviii, column 6, against Total, *for* 1,753 *read* 1,754.

Ditto xlii, ditto 3, under Jumna river, &c., against B. G. rail sleepers, *for* 382 *read* 82.

Ditto ditto 5, against Total, 1887-88, *for* 6,58,225 *read* 5,55,191.

G. J. VAN SOMEREN, COLONEL,

Conservator of Forests, School Circle, N.-W. P. and Oudh.

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N.-W. PROVINCES AND OUDH.

SCHOOL CIRCLE.

ANNUAL PROGRESS REPORT

OF

FOREST ADMINISTRATION

FOR THE YEAR 1888-89,

COMMENCED BY LIEUTENANT-COLONEL F. BAILEY, R.E., CONSERVATOR OF FORESTS, SCHOOL CIRCLE,
COMPLETED BY MR. E. McA. MOIR, OFFG. CONSERVATOR OF FORESTS, SCHOOL CIRCLE.

INTRODUCTION.

1. DURING the year fairly satisfactory progress appears to have been made in most branches of the Forest Administration of the Circle.

In the Dún Division the carrying out of the provisions of the new Working Plan has materially increased the work, most of which has, however, been accomplished.

In Jaunsár the timber operations were unusually heavy and important; savings were effected in the cost of these works. The cultural and other operations prescribed in the three new Working Plans have also greatly increased the work, most of which has been successfully done.

In the Saháranpur Division much useful work, especially with regard to coppice operations, was accomplished during the year.

Under fire conservancy, the result is very satisfactory in the Jaunsár Division, fairly so in the Dún, but unsatisfactory in the Saháranpur Division, due to the renewal of incendiary fires, over which the Divisional Officers could have little control.

The expenditure of the circle was reduced by Rs. 10,122, and the surplus is Rs. 1,22,845, or the second highest on record.

2. In addition to the ordinary executive duties the undermentioned officers of the circle took part in the instruction at the Forest School in the following manner :—

MR. W. R. FISHER	... Structure and growth of plants.
„ A. SMYTHIES	... Mathematics.
„ L. MERCER	... Forest Law.
Forest Ranger HAR SWARUP, I.	... Botany and Forestry in Hindustáni.

CHAPTER I.

Area and Boundaries.

Area.

3. *Changes during the year.*—There was a nominal increase of 492 acres in the reserved forest, due to the inclusion for the first time of the Bandla, Kothah and Raura forests in Jaunsár (508 acres), and to the reduction of the figures relating to the Dehra Dún Division by 16 acres, in consequence of the adoption of the areas given in the Working Plan. The areas of reserved (including leased) forests was 800½ square miles on the 1st April, 1888, and 801 square miles on the 31st March 1889. No changes occurred in the area of forests of other classes, the grand total in charge of the Department at the close of the year being 815 square miles.

2.—Boundaries.

4. *Expenditure.*—The expenditure on the construction and repair of pillars, clearing lines and miscellaneous work connected with boundaries was Rs. 2,313, as compared with Rs. 1,754 during the previous year. In *Dehra Dún* Rs. 108 only were spent, as the boulder pillars were in good condition; but masonry pillars with the number engraved on a slate slab are to be substituted for these, as the tin number plates are liable to fall off. In *Saháranpur* the expenditure was Rs. 486. In the Central Range of this Division a ditch is being dug at a cost of Rs. 20 per mile, in order to clearly define the boundary between the forest and the cultivated land lying outside it. The principal work of this kind was done in the *Jaunsár* Division, where Rs. 1,719 were spent, principally on the adjustment of outer boundaries, and demarcation of internal "chaks," suggested in Mr. Hearle's Working Plan. Further details will be found in Appendix (F).

5. *Condition of the boundary pillars.*—The statement given in Appendix (F) shows that out of a total of 3,007 boundary pillars 2,275 are in good order, 572 required repair and 160 must be rebuilt. The total length of artificial boundary in the three divisions is 703 miles, of which 634 miles were inspected during the year and found in good order.

6. *Disputed boundaries.*—The disputed questions relating to the boundaries of General Lyster's and Colonel Swetenham's estates have been settled. The boundary of the Messrs. Powell's land in Sahárapur is still unsettled. The orders of Government are awaited in the case of the disputed boundary between Bánpur (Jaunsár) and the Taroch State. The dispute between Taroch and the Dádi Jágírs could not be decided by Mr. Moir, who has reported the matter to the Superintendent of Hill States. Some portions of the Deogar boundaries remain unsettled, as at the time that the Deputy Conservator might have undertaken this work certain maps were not available. The portion of a part of the boundary of the Tehri-Garhwál State, where it marches with that of the Riknár forest, is disputed by the neighbouring Jaunsár villagers.

CHAPTER II.

Surveys, Working Plans and Annual Plans of Operations.

1.—Surveys.

7. *Works done during the year.*—No expenditure under this head was incurred during the year.

The Superintendent of Forest Surveys, however, estimated that a charge of Rs. 1,900 would be incurred during 1888-89, on account of the survey of the Tehri-Garhwál leased forests, but no intimation of the final adjustment of the account has yet been received from the Comptroller and Auditor-General.

The Surveyor and draftsman attached to the Conservator's office was employed in surveying and mapping new roads in Dehra Dún, in levelling and drawing sections of raus in Saháranpur, and in preparing various maps and tracings required for the Conservators and Divisional Officers.

2.—Working Plans.

8. *Results of operations compared with the provisions of the plans.*—The total expenditure was Rs. 279 as compared with Rs. 14,274 during the previous year.

Dehra Dún.—Mr. Fernandez' Working Plan came into force during the year. Mr. Smythies reports that he was unable to complete the prescribed thinnings in the Sissu forest, as his range officers had not time to supervise them; nor to commence the manufacture of Katha, as the contractor's agreement was not sanctioned in sufficient time to admit of this. The prescriptions for working the bamboo forest were not exactly followed, and this deviation from the plan forms the subject of a correspondence with the Divisional Officer.

In the Bahera block of the Kansrao forest, where the usual "improvement fellings" were to be carried out, a number of trees, amounting to 24,327 of all kinds and classes, were marked by Forest Ranger Har Swarup in accordance with the principles laid down in the plan. It was hoped that from these trees it might be possible to meet an indent for timber, chiefly sál, required for the Ganges Canal head works; but out of 8,469 sál poles below 3 feet in girth, some 2,300 only were found suitable for canal purposes, the balance, about 6,149, being unsuitable. These latter were therefore left standing, and under the Conservator's sanction about 6,500 other sál poles of a superior quality were cut out in order to complete the Canal Department indent. A separate report on this operation, which appears to constitute an infringement of the provisions of the Working Plan, will be submitted.

Saháranpur.—A Working Plan for these forests has not yet been framed.

Jaunsár.—The expenditure on Working Plans in the Jaunsár Division was Rs. 279, Mr. Hearle's Working Plan of the Tehri-Garhwál leased forests was sanctioned by Government in November, but its provisions have been carried out since the 1st April 1885, on which date the new lease came into force. Mr. Fernandez's Working Plan of the Mundali Forest was sanctioned, with certain modifications, in December. Mr. Hearle's plan for the Deoban range was also sanctioned in December. This plan embraced proposals for the leasing and subsequent management of certain forests lying within the Chakráta Cantonment boundary, and regarding which it is noted in the Government order that "it will rest with the military authorities to determine whether the lease should be granted or not." The Cantonment Committee declined to grant the lease, but the Lurli Suitoli and forest garden blocks remain in charge of the department on the old terms. Mr. Hearle's Working Plan for the Jaunsár chír forests is still before the Inspector-General of Forests. The various operations prescribed in the sanctioned plans were carried out as far as circumstances permitted. The principal deviations from them were as follows, *viz.*,—Ten acres could not be planted in Mundali on account of a short supply of plants and seeds; and endeavour will be made to plant up this area in addition to that prescribed for the current year. Sixty-one deodár trees less than the prescribed number were cut in the Tehri-Garhwál leased forests, as funds were not available for the work. In Bámsu and Dhikuri thinning and girdling were carried on over 500 instead of 1,192 acres, the work having been impeded by an early fall of snow and the difficulty of obtaining labor. The balance will be included in the programme for the current year.

Measurements of growing trees.

9. The measurements of growing trees were continued in the Saháranpur and Jaunsár Divisions. A new area of one acre was taken up as a sample plot in Saháranpur. The growth of the bán (*quercus incana*) coppice in Korwa (Jaunsár) is satisfactorily rapid. In the Dún Division the measurement of the trees in the sample plot was not carried out in December, as directed by Mr. Fisher, but were measured in June 1889, and as they put in no growth from December to June, the Divisional Officer thinks that this delay will make no appreciable difference in the results.

3. Plan of Operations.

10. *Carrying out of plans.*—The Conservator has satisfied himself that the annual plans of operations were carried out as far as was found to be practicable. These plans, if carefully drawn up and not too ambitious, are found to be most useful, and save a great deal of correspondence between the Conservator and Divisional Officers.

CHAPTER III.

Protection and Improvement.

I.—Establishment.

11. *Controlling Staff.*—Mr. Fisher continued to officiate as Conservator until the 1st January 1889, when he handed over charge of the current duties of the Conserva-

torship to Mr. Fernandez, Deputy Director of the Forest School. Lieutenant-Colonel F. Bailey, on re-transfer from the Panjáb, assumed charge on 15th January 1889. Mr. E. McA. Moir continued to hold charge of the Jaunsár Division. Mr. A. Smythies resumed charge of the Dehra Dún Division on the 29th June. Mr. Hearle was granted fifteen months' furlough from the 16th August. Mr. Clifford was absent on special leave throughout the year. Mr. Hobart-Hampden handed over charge of the Dehra Dún Division to Mr. Smythies on the 29th June, and of the Saháranpur Division to Mr. Mercer on the 20th July. He then took seven (extended to eight) months' sick leave, and on his return was transferred to the Central Circle. Mr. Mercer held the Saháranpur Division from the 20th July to the end of the year. Mr. Osmaston joined from Cooper's Hill on the 6th January 1889.

12. *Expenditure on subordinate establishment.*—The maximum amount sanctioned for permanent subordinate establishment was reduced from Rs. 25,056 to Rs. 24,828 by the transfer of Rs. 228 to the Panjáb, in consequence of the surrender to that province of the forests in the Básháhr State lying in the Rupin and Pabar valleys. The actual expenditure on these establishments rose from Rs. 19,026 in 1887-88 to Rs. 20,823; the increase of Rs. 1,497, representing the gradual approach to the sanctioned scale, which is taking place. The cost of the temporary establishment was reduced by Rs. 837.

13. *Executive Staff.*—This circle has now seven Forest Rangers, of whom four are attached to the Dehra Dún Division and three to the Jaunsár Division. All are reported to have done excellent work.

Protective Staff.—One range in Dehra Dún, three in Saharanpur and two in Jaunsár are held by foresters. These men, as well as the five foresters, who are otherwise employed, are well reported on, with the exception of Anant Rám, who was reduced from 4th August, by Mr. Fisher, to a lower grade, and transferred from the charge of the River Range Jaunsár Division, to the charge of the Kharkhari Chauki, Dehra Dún Division. The forest guards generally speaking did their duty well; but four men were dismissed in Saháranpur, three of whom had connived at theft: several men had to be punished in Jaunsár, and three of these were dismissed, one of whom was proved to have accepted a bribe.

Mr. Moir brings to notice the difficulty experienced in connection with the travelling allowances of forest guards engaged on floating timber to Delhi; this matter has been reported to Government. Mr. Mercer represents that at least four additional guards are required for the efficient protection of the Central and Eastern Ranges.

14. *Students at the School.*—Forester Akbar Ali has obtained the forester's certificate. Two students, *viz.*, Gulab Rai and Panna Lál, each in receipt of a stipend of Rs. 20, as temporary foresters, entered the school, but Panna Lal was allowed to resign at the close of the year, as he was not considered sufficiently promising. Several students of the school not belonging to this circle were temporarily attached to the Dehra Dún and Jaunsár Divisions.

15. *Office Establishments.*—The maximum amount sanctioned for permanent office establishment remained at Rs. 8,412. The actual charges were Rs. 8,395 as compared with Rs. 8,199 in the previous year. The expenditure on temporary office establishment was Rs. 2,314. Mr. Mercer strongly represents the inadequate salary of his vernacular clerk, and a separate communication on this subject will be submitted to Government. Mr. Moir also brings to notice the low rate of pay of some members of his establishment. This matter has been laid before Government.

2.— General protection and breaches of Forest Law.

16. *Forest offences.*—The principal details in connection with forest offences are shown in the subjoined statement.

Division.	Cases before the Court.	Prosecutions.				Cases compounded.	
		Convictions.		Acquittals.		Number of persons.	Amount received in compensation.
		Cases.	Persons.	Cases.	Persons.		
							Rs.
Dehra Dún	2	1	1	1	2	63	144
Saháranpur	1	...	...	1	1	91	434
Jaunsár	7	6	11	1	1	44	230
Total for 1888-89 ...	10	7	12	3	4	198	808
Total for 1887-88 ...	5	3	6	1	2	203	1,075

The total number of cases tried may be classed as follows :—

Injury to forest by fires	...	12
Unauthorized felling, &c.	...	42
Illicit grazing	...	20
Other offences	...	10
Total	...	84

The other offences were as follows :—

Assaults on forest guards	...	2
Fishing in Government Forests	...	5
Shooting young Chittal	...	1
Infringement of the Jumna River Rules	...	2
Total	...	10

Twice the number of cases was reported to the Magistrates in comparison with the former year. This increase is due to the detection of five sleeper thefts in the Jaunsár Division, whereas none were discovered the year before.

The Deputy Conservator of Forests, Jaunsár Division, states as follows regarding these prosecutions :—

"All these cases were sleeper thefts near Kowanu, which has long been known to be a centre of such practices, and it may be noted that in every case tried convictions were obtained. The last case tried, *viz.*, that of Ranjit Syana, of Khat Dissau, is particularly important as this man is an old offender and has long defied all attempts at prosecution by this department. In addition to being sentenced to three months' imprisonment for having had a piece of sleeper built into the wall of his house, he was fined Rs. 100 under section 78 *(d)* of the Forest Act for failing to give information of these thefts to the District or Forest authorities, but on appeal to the Commissioner's Court this part of the sentence was quashed as being illegal. In the other cases the accused were sentenced to fines of Rs. 10 each and terms of imprisonment, varying from one to three months. General satisfaction exists amongst the timber traders at the result of the prosecutions, as the losses of these men on the river probably amount to 6,000 or 7,000 sleepers annually, and it is to be hoped that the prosecutions will have the effect of checking thefts for some time to come.

One acquittal took place in each division as follows :—

In Jaunsár a river case of catching timber without a permit, which was pending from the previous year, dismissed. This case fell through owing to the suspicious conduct of Anant Rám, Forester. The acquittal in the Dún was a fishing case, which was withdrawn from court for want of proper evidence.

In the Saháranpur Division a charge was made against a servant of Messrs. Powell for inciting the villagers who graze in the Government forest, to abstain from giving evidence in a fire case, and for assaulting a forest guard, who came to summon them. The case was dismissed for want of evidence.

17. *Cases compounded under section 67 of the Forest Act.*—The following shows the results of cases compounded under section 67 of the Forest Act :—

	Cases compounded.			Cases enquired into and dismissed.		Remarks.
	Cases.	Persons.	Amount of compensation in rupeeses.	Cases.	Persons.	
			Rs.			
Average of previous four years.	100	180	886	11	43	
1887-88	89	203	1,075	13	40	
1888-89	75	198	808	16	50	One pending at close of year.

The cases were classified as follows :—

Injury to forests by fire	12
Unauthorized fellings, &c.	36
Illicit grazing	20
Other offences	7
Total ...	75

The 75 cases compounded were distributed as follows :—

	No. of cases.	Compensation received.	Paid as reward.
		Rs.	Rs.
Dehra Dún	23	144	9
Saháranpur	31	434	4
Jaunsár	21	230	6
Total ...	75	808	19

The decrease in the number of cases tried by Divisional Officers is due to the following causes :—

In Jaunsár to the abandonment of the Báshahr Forests, where many petty cases used to occur.

The Deputy Conservator, Dehra Dún Division, attributes this decrease to the fact that the forests are now worked in several distinct centres, and produce of all sorts is available at cheap rates at various places. In the Saháranpur Division the cases compounded were almost the same as during the former year. The acquittals by the Forest Officers were higher than during the previous year, from which it may be inferred that the law is not being enforced with unnecessary severity by them.

18. *Relations between the Department and the neighbouring villagers.*—In Dehra Dún the relations between the department and the neighbouring villagers are reported to be satisfactory. In two of the ranges they are largely employed on forest works and earn considerable sums of money in this way.

A question regarding the right claimed by the residents of Malkot to lop the Semla trees is under settlement. In Saháranpur the grazing rights reported last year as having been suspended have been restored by the Collector, and the relations of the department with the people are good. Mr. Moir reports that, with the exception of the inhabitants of Khats Bawar and Deogarh, who are notoriously indolent, the Jaunsáris are taking employment on forest works to a greater extent than formerly ; and some new headmen have recently come forward to take petty contracts. Under the terms of the record-of-rights, the people cannot lop trees for fodder in second class forests otherwise than with the permission of the Forest Officer. Such permission has hitherto been given throughout these forests, subject to the conditions that no tree shall be touched which is under 4 feet in girth, and that no branches over 1 inch in diameter or at the top of the tree shall be cut; but these conditions were, especially in the neighbourhood of Chakráta, found insufficient to prevent the destruction of the forest, and thus to render the source of supply secure. It was therefore decided, in communication with the Commissioner and Superintendent of the Dún, to limit the lopping, except at Kalsi and Lohari, to the period between 15th December and 15th March in each year. This

causes some dissatisfaction, but every facility is now afforded for the marking and removal of timber given to right-holders, and on the whole the relations of the department with the people are on a satisfactory footing.

19. *Shikáris and wild animals.*—Mr. Mercer reports that considerable damage is done to the villagers' crops during the rains by deer and wild elephants. A man was killed by one of those animals. Wild dogs are said to be on the increase in the Siwáliks.

The *Kheddah* of the Mahárája of Balrampur visited Dehra Dún at the end of January and caught four or five elephants near Rikhikesh. Man-eating tigers still infest the northern part of the Jaunsár Division, and up to the close of the year none of them had been killed. Serious interference with the working of the division was caused by these animals during the year, and a considerable number of persons were killed. The destruction of a man-eating tigress by Mr. B. B. Osmaston at Mundali on 12th May 1889, has formed the subject of a recent report.

3.—Fire Conservancy.

20. *Preliminary remarks.*—The following statement, drawn up in accordance with the form given at para. 9 of the Local Government Review of last annual report, shows the general result of fire conservancy during the year as compared with 1887-88 :—

Division.		Area attempted to be protected.	Area actually protected.	Failures.	Percentage of failures to area actually protected.	Cost during the year, including rewards to establishment.	Cost per acre of area actually protected.
		Acres.	Acres.	Acres.		Rs.	Pies.
Dehra Dún ...	1887-88 ...	157,213	153,176	4,037	2·63	3,391	4·24
	1888-89 ...	157,513	151,252	6,261	4·14	3,205	4·06
Saháranpur ...	1887-88 ...	143,259	129,652	13,607	10·49	2,203	3·26
	1888-89 ...	143,259	118,412	24,847	20·98	2,404	3·89
Jaunsár... ...	1887-88 ...	53,224	52,135	1,089	2·08	1,196	4·40
	1888-89 ...	56,203	55,671	532	·95	741	2·55
Do. (leased) forests in Tehri Garhwál.	1887-88 ...	42,685	42,660	25	·06	563	2·53
	1888-89 ...	42,685	42,685	...	...	377	1·69
Total ...	1887-88 ...	396,381	377,623	18,758	4·96	7,353	3·73
	1888-89 ...	399,660	368,020	31,640	8·59	6,727	3·50

From this it will be seen that the total area attemped to be protected was increased by 3,279 acres : out of this area 2,401 acres were, however, only nominal, the difference being due to correction of areas in the Jaunsár Division.

The area actually protected was 9,603 less than during the previous year, and the failures were 31,640 as compared with 18,758 during the former year.

The total cost of fire protection was decreased by Rs. 726.

21. *New areas protected and areas abandoned.*—The new areas protected for the first time are as follows :—

Division.	Forest or block.	Area.	Remarks.
Dehra Dún ...	Nichla Suswa ...	300	Coppice area closed.
	Maina	50	New deodár areas closed.
	Chauria Ban ...	30	
	Kanun	650	
	Májog	348	Chír forest closed.
Jaunsár ...	Total ...	1,378	
	Nominal additions ...	2,401	Due to correction in former area in the Bawar Range.
	Total ...	3,779	

The protection of the following area has been abandoned :—

Division.	Range.	Block.	Area.
Jaunsár	Deota ...	Khuni Gád	500

The new areas closed in the Dún and Jaunsár are all situated far from villages, so that no great inconvenience is likely to be caused to the villagers due to the non-firing of the grass.

The area abandoned in the Deota Range Jaunsár Division consists of a bán oak forest of little value, which being situated above the Khunigád chír forests was considered a source of danger to them, as it was much frequented by "*shikáris*" who sometimes left fires burning, which on more than one occasion caused conflagration.

22. *Cost of protection.*—The following statement shows the cost of fire-protection as compared with the former year :—

Division, &c.		Area successfully protected.	Length of fire-lines.	Cost of					
				Clearing lines.	Burning lines.	Fire guards.	Extinguishing fires.	Total.	Per acre.
		Acres.	Mile.	Rs.	Rs.	Rs.	Rs.	Rs.	Pies.
Dehra Dún ...	Previous nine years ...	59,937	...	...	...	...	...	3,927	12·58
	1887-88 ...	153,176	325	739	709	1,812	131	3,391	4·24
	1888-89 ...	151,252	315	841	825	1,204	*335	3,205	4·06
Saháranpur ...	Previous nine years ...	47,234	...	...	...	...	...	2,388	9·70
	1887-88 ...	129,652	116	347	63	1,567	226	2,203	3·26
	1888-89 ...	118,412	122	390	194	1,292	†528	2,404	3·89
Jaunsár ...	Previous nine years ...	71,196	...	...	...	...	...	1,319	3·55
	1887-88 ...	94,795	332	306	1,132	128	193	1,759	3·56
	1888-89 ...	98,356	343	76	860	154	28	1,118	2·13
Total ...	Previous nine years ...	178,367	...	...	...	...	...	7,636	8·22
	1887-88 ...	377,623	773	1,392	1,904	3,507	550	7,353	3·73
	1888-89 ...	368,020	780	1,307	1,879	2,650	891	6,727	3·50

* Including amount of rewards.

† Ditto.

In the Jaunsár Division there is a considerable decrease in the expenditure, due to more economical work having been done in all the ranges.

In the Saháranpur Division there is a slight increase of expenditure, due to the great incendiary fires of 28th May. As regards the cost per acre of the area successfully protected it was decreased from 3·73 to 3·50 pies per acre for the circle. The greatest decrease took place in Jaunsár, where a saving of 1·43 pies per acre was effected. The Dún also shows a slight decrease of charges, whereas the Saháranpur exhibits a slight increase.

23. *Failures, list of conflagrations.*—The accompanying Appendix G exhibits in a convenient form the conflagrations which have occurred during the year with their probable causes. In the Dún Division it will be noticed that the most extensive fires, *viz.*, those at Kalianpur and Koelpura blocks, on the 28th and 11th May respectively, crossed the Siwaliks from the Saháranpur side, and had this not happened the area burnt would have been trifling. This points to the necessity of constructing an efficient fire line along the ridge of the Siwáliks, which matter has long been under consideration.

In the Saháranpur Division the areas burnt exceeded that of the previous year by 11,240 acres, and was greater than that of 1886-87 by 971 acres, when incendiary fires were also prevalent. In the Jaunsár Division the result is the best on record, the failures having amounted to 532 acres only, as compared with 1,114 acres during 1887-88 and 1,033 during 1886-87.

24. *Incendiary fires in the Saháranpur Division.*—It is to be much regretted that out of the 16 conflagrations which took place in the Saháranpur Division 12 were apparently due to incendiarism, which represent a most unsatisfactory state of affairs.

It may be again mentioned that in consequence of the conflagration which took place in this division during May and June 1887 from the same cause, the grazing privileges of certain villages were suspended for one year by the Collector.

In order, however, to conciliate the people, the full extent of the punishment was not carried out, and the privilege was again granted after the lapse of eight months only by the Collector in communication with the Conservator. This punishment does not seem to have had much effect, and more strenuous measures seem now to be called for. The most serious conflagrations due to this cause occurred on the 28th May and following two days in the Barkala and Kaluwála blocks of the western range, where the grass was evidently lighted in three or four places by an incendiary. These fires lasted three days and extended to the Kalianpur and Kaluwála blocks of the Dún Division, the total area burnt in the two divisions being over 20,000 acres. Owing to the establishment being engaged early on the 28th May with the conflagration in the Barkala block, the fire which broke out later in the day in the Kaluwála block obtained a firm hold before it could be dealt with, hence the reason for the lamentable extent of these conflagrations. The intention of the incendiary was evidently to burn all the forest from Barkala to Mohand, but the presence of Mr. Mercer and the vigilance of his establishment prevented this being done. Every effort is being made by District and Forest authorities to discover the author of these serious fires, and hopes exist that the real offender has been arrested by the police. From what occurred during 1886-87, and the year under report in the Saháranpur Division, it is clear that stronger measures must now be taken in order to put down these conflagrations, and if not, the sooner the attempt to fire conserve such a large extent of these hills is abandoned the better.

There were also two other serious fires in the eastern range on the 11th May, probably due to the same cause.

The principal incentive to these fires is the prospect of better grazing, and a more abundant crop of Bhábar grass during the succeeding year.

25. *General remarks on fire conservancy.*—The following general remarks on the fire conservancy of the circle are abstracted from the divisional reports.

The Deputy Conservancy of the Dún Division remarks as follows :—

The fire conservancy in the Dehra Dún Division during the past few months would have been very successful, but for the two large fires, one in Motichúr Forest and the other in the Malhan forest. These both crossed the watershed from the Saháranpur side. Strong measures are required for the suppression of fires in the Saháranpur Division and will be taken during the coming year.

It will be noticed that the cost per acre was in three out of the five ranges considerably less than last year. In the Ramgarh Range the work of the Range Officer, Har Swarup II, is very praiseworthy, he having had not a single acre burnt, and his fire conservancy costing the extremely low figure of 2·1 pie per acre. In the central range of the Saháranpur Division the Assistant Conservator reports favorably of the successful fire conservancy of Forester Pirbhu Lal, whose charges were extremely low, and who exhibited great tact in dealing with the neighbouring villagers. As a consequence they rendered him every help possible in his work, and on the occasion of the fire of the 6th June in the Bám and Betban blocks, they refused all payment for their services.

In the Jaunsár Division the areas burnt were *nil* in the Bawar, Deota and Kotigád ranges, and it is satisfactory to note that no fires took place this year through the carelessness of the forest guards whilst burning the fire lines. This satisfactory result may be attributed to the following causes :—

1*st*.—Unusual favorable circumstances, *viz.*, a heavy fall of snow on the 20th of November and the early setting in of the rains about the 10th of June.

2*nd*.—Greater care and better supervision exercised by the trained Forest Rangers.

3*rd*.—The encouragement of healthy competition between the subordinates of the different ranges, and the bestowal of small rewards on those who are most successful in fire conservancy.

In all instances in this division, except in the case of the Bánpur conflagration, great promptness was exhibited on the part of the establishment in extinguishing the fires.

26. *Effects of fire protection on the floods in the Siwáliks.*—These observations were carried out in the Saháranpur Division, the following being an abstract from the Assistant Conservator's report on this subject:—

Levels were taken by the Circle draftsman in January 1889, of nine representive Raus, and after being plotted the plans were submitted to the Conservator. The duration and amount of the rainfall was measured by the ordinary Forest Establishment by means of cheap watches previously supplied and rain gauges set up at 12 different stations. The accuracy of the observations is, however, open to doubt, which has been explained in a report submitted to the Conservator, and a temporary establishment specially for this work has been asked for during the coming monsoon.

A special report on this interesting subject has been submitted by the Conservator to Government, embodying the results of the last two years' observations.

4.—Grazing.

27. *Areas closed to grazing.*—The following statement shows the area closed to grazing:—

Division.	Area closed to grazing.	Area open to grazing.			Total of each Division.
		Protected from fire.	Unprotected from fire.	Total.	
	Acres.	Acres.	Acres.	Acres.	Acres.
Dehra Dún ...	43,363	107,352	26,349	133,701	177,064
Saháranpur ...	63,359	82,371	42,836	125,207	188,566
Jaunsár ...	44,421	51,996	50,550	102,546	146,967
Totals for the Circle ...	151,143	241,719	119,735	361,454	512,597

It is seen that only 29½ per cent. of the entire forest area is closed, while two-thirds of the open portion are protected against fire.

28. *Damage done by grazing.*—The damage done by grazing in Dehra Dún is trifling except on limited areas, over which the cattle frequently pass on their way to and from the forests. Mr. Smythies remarks that the Palasi "tapar" (open grass plateau) is becoming covered with *Flemingia Chappar*—a shrub now from three to four feet high, which the cattle will not eat, and which keeps down the grass. In Saháranpur the damage done by cattle is considerable, and the large area which is open prevents the department from undertaking fellings, which might otherwise be made, and this, it is needless to say, keeps down the revenue.

The Gújars have not given so much trouble as usual, in consequence, it is believed, of their having been permitted to lop certain specified kinds of trees and climbers, on payment of an extra fee of Re. 1 per buffalo. Mr. Moir observes that in Jaunsár the grazing of cows and bullocks, permitted in exceptional cases during certain seasons of the year, has not been found to do any serious amount of harm to the forests; but that, as a matter of course, the brousing of sheep and goats in the pine forests is very injurious. As regards the Gújars, he says that they came and went as usual, and that although a few complaints were made regarding damage done to crops, no serious affrays occurred, and the villagers, generally speaking, admit that the Gújars behave themselves better than formerly.

29. *Collection of grazing dues in Dehra Dún and Saháranpur.*—The collection of grazing dues in Dehra Dún now presents no difficulty. The inhabitants of some fifteen villages objected to the assessment, and on their cattle being counted, reduction was, where necessary, made; but in some cases the re-enumeration of the stock resulted in an enhancement of the demand. The amount of grazing revenue outstanding at the close of the year was Rs. 81-7-0. It is hoped that the arrangements recently approved by Government for the working of the collection rules in Saháranpur will remove the difficulty hitherto experienced in that division, where the amount of grazing revenue outstanding at the close of the year was Rs. 3,220-6-11.

5.—Natural reproduction.

30. *General remarks.*—As regards Dehra Dún Mr. Smythies writes as follows:—

"The sál tree seeded fairly well, but it is only once in three or four years that there is a universal supply of seed. The reproduction of various species, including chír *(Pinus longifolia)* along the Siwálik ridge is progressing most favorably, all the slopes being covered with strong healthy seedlings of trees and shrubs. In the better sál forests the reproduction is an accomplished fact, and all that has to be done is to watch and maintain the young growth.

Mr. Mercer says regarding the Saháranpur Division "seedlings of chír have been observed all over the hills that are protected from fire and grazing, and they are making capital progress, but in blocks where grazing is permitted, it may be said that there are few seedlings of any sort. In the sál forests reproduction comes chiefly from stool shoots. The portion of the forests on the southern slopes of the Siwáliks, where they are exposed to dry, hot wind is very much against the growth of seedlings. In many of the raus (dry stony stream beds) of this division shisham seedlings are appearing, under the influence of fire protection, and are doing splendidly. The Gájrau is a very noticeable instance of this." He adds that the season was unfavorable for the production of sál seed.

Mr. Moir says of the Jaunsár Division: "The reproduction of chír in all the areas closed to fire is found to be even more satisfactory than has been previously reported; and so rapid is the growth that in four or five years the young seedlings are strong enough to resist permanent injury from an occasional conflagration. The reproduction of the kharsu oak at Snow View is also satisfactory, and seedlings have now appeared in many places where none formerly existed. As the acorns are invariably pierced by insects, this result is noteworthy. It is satisfactory to note that the natural reproduction of blue pine continues to progress in a most satisfactory manner in all fire-protected areas at suitable altitudes."

Mr. Moir reports that the seeding of deodár was by no means general: rai, morinda and moru seeded moderately; kail, kharsu and bán seeded freely. There was no chír seed. Natural reproduction in the boxwood reserved forest near Chakráta is satisfactory.

6.—Artificial reproduction.

31. *Regular plantations.*—The area was unchanged. The Pathri sissu plantation (80½ acres) is not in a flourishing condition, and the question of its abandonment will be considered. The expenditure was Rs. 8.

32. *Cultural operations.*—The expenditure during the year was as follows, *viz.*:—

	Rs.
Dehra Dún	531
Saháranpur	156
Jaunsár	1,048
Total	1,735

The expenditure in 1887-88 was Rs. 2,687. The net addition to the area under cultural operations is 45½ acres, 2½ acres were added in Saháranpur, and 47 acres in Jaunsár; but 4 acres in Jaunsár were struck off as failures. Rs. 1,453, being the reported cost of abandoned plantations struck off as failures in former years, have been omitted from the last column of Form No. 52.

In Dehra Dún the principal expenditure was on the Ramgarh sál and bamboo plantation, which is not doing well, and the attempt to establish it will not be further prosecuted.

The Conservator of Forests agrees generally with the following remarks made by Mr. Smythies on the subject of sál plantation in the Dún:—

"With regard to sál plantations in the Dún the argument is briefly this—(1) that the blank which we should like to see filled up are mainly places where for some reason or other (frost, stony ground, cattle, fires in the past) sál does not grow naturally; (2) that if the locality is liable to frost, *e.g.*, Jaberkhet now aban-

doned, a time must come in the upward growth of the seedling when we can no longer protect them with cowls, and the first severe winter cuts them to the ground; (3) that it is far better to reserve these localities for sale of thatching grass which brings in a good revenue, or to allow grazing over them, and, thus to keep the cattle as much as possible away from the good sál forest where natural reproduction is coming on well; (4) that we should be quite content with the progress of reproduction, and the present condition of the future stock in the better sál forests, and devote our time and energies to the improvement of this instead of to a few small plantations of doubtful success; (5) that by renouncing the expenditure on these places and selling the grass either for fodder or for thatching, we shall increase the *surplus* revenue by quite Rs. 1,000 a year."

It is, however, desirable, for instructional purposes, to maintain the small plantation near Phandowála, and this will be kept up.

In the Saháranpur Division a small area at Pathri was ploughed up and sown with hardly species, but the result was not satisfactory. Bamboo seeds were sown at Ranipur, but the seedlings were destroyed by pigs; similar attempts made in other places were not more successful. Planting and sowing in this division are attended with exceptional difficulty owing to the severity of the winter frost and the heat of the sun in summer.

In Jaunsár the operations were limited owing to want of funds. But the small area shown as added to that of the previous year does not adequately represent the satisfactory amount of work done in the numerous localities mentioned in Form 52. The Divisional Officer's report shows that in round numbers 9,000 old pits were replanted, 21,000 old pits were resown, and 22,000 plants were put out to replace failure in old plantations. A number of new nurseries were made, and other work was done. Mr. Moir observes that, in accordance with the Inspector-General's suggestions, as much kail as possible will be introduced into the Bodiár plantations. Sowings of this species have been made there for several years past, but the seed has been eaten by birds. Recourse will now be had to planting. It is satisfactory to note that self-sown kail trees, which have sprung up since the forest was closed, are now beginning to seed freely. At Mundali the prescriptions of the Working Plan could not be fully carried out for want of seed. Work was commenced in compartment 13 instead of compartment 10, where the coolies were afraid to work on account of the man-eating tiger. In accordance with the suggestion made by the Inspector-General of Forests, a nursery was made in the Panch Koti forests, and deodár seed was sown in patches under shelter of the kail trees. A difficulty is experienced at Deota in getting men to work in the plantations on moderate terms, as they can earn so much more at the carrying and sledging of sleepers. Mr. Moir has planted several specimens of Scotch Pine, *Cryptomeria Japonica* and *Sequoia Gigantica* near the Mundali and Kathián bungalows, and these are doing well. The Divisional Officer reports that the growing of vegetables in the Chakráta forest garden was undertaken at the instance of the military authorities in 1886-87; cultivation was last year confined to a few beds near the canal, which could easily be watered. Even the small quantity of vegetables thus raised was disposed of with difficulty, and their cultivation will be discontinued. The fruit trees were carefully pruned and manured. There was a fair crop of peaches, cherries and nectarines, but the apples failed. Among exotics *Fraxinus floribunda* promises to do well, and pines of all kinds are successfully raised; but larch and all species of eucalyptus have proved af ailure. It is probable that the eucalyptus cannot stand the snow; 1,721 plants were put out in the cantonments, 200 were sent to Mussoorie, 104 were given to villagers, and 647 were put out in the garden or in the forests. The expenditure was Rs. 845 as compared with Rs. 1,485 during the previous year. The revenue was Rs. 248. was Rs. 338 in 1887-88.

7.—Removal of inferior species, climber cutting, &c.

33. *General remarks.*—In accordance with the practice of former years, work done under the heads of climber-cutting, cutting back of injured sál trees, and thinning and girding of inferior species, is shown in Form No. 52A, but the Conservator of Forests is doubtful whether the form is suitable for this purpose.

34. *Climber cutting.*—Climbers were cut over an area of 8,282 acres at a cost of Rs. 733, which gives an average of Rs. 56½ per square mile. Of the total area thus

treated 6,972 acres were in Dehra Dún, where the cost was found to vary from Rs. 26 to Rs. 138 per square mile according to the nature of the forest. Mr. Smythies explains that the latter charge was an isolated case due to the carelessness of a forest guard who was dismissed. Mr. Smythies truly observes that our best hope of being able to reduce the cost of such operations lies in increasing the efficiency of the subordinate establishment generally, and by instructing the forest guards in the proper method of carrying them out.

35. *Cutting back badly grown and damaged sál saplings and poles.*—This is the last operation of the Dehra Dún "improvement fellings," carried out in each coupé after the export of timber from it has entirely ceased; 1,450 acres were gone over at a cost of Rs. 1,088.

36. *Girdling and thinning.*—The total expenditure under this head in Dehra Dún and Jaunsár amounted to Rs. 2,372. In Dehra Dún 157,235 trees of inferior species were girdled over an area of 4,160 acres of sál forest at a cost of Rs. 1,455. This was done to improve the composition of the crop. In Jaunsár the operations were of two kinds, *viz.*, girdling trees of inferior kinds before felling the deodár, in order to facilitate the springing up of a young crop of that species; and girdling and thinning out trees and poles of inferior kinds standing over deodár seedlings after the old trees have been removed. Taking these two operations together, the area worked over was 1,348 acres and the cost was Rs. 917; but in order that Form No. 52 may contain a complete record of the total work done under this head from year to year, an area of 140 acres in the Tutwa block of the Mundali forest, treated during the previous years, has been included in it. Work in Bámsu and Dhikuri (Deota) was stopped by a heavy fall of snow which occurred in November, and prevented the completion of the area prescribed by the Working Plan. Mr. Moir reports that the growth of deodár seedlings has been much increased by these girdlings and thinnings; but he expresses a doubt whether such operations carried out on an extensive scale may not expose the forests to damage by insects. This is no doubt to be feared, and the forests must be carefully watched, in order to detect the first signs of such a result.

37. *Progress of coppice growth.*—As regards the Dehra Dún Division, Mr. Smythies reports as follows :—

"It is as yet too early to report on the coppice of Gohri and Khairi. The sál trees, which have been cut back at different times in the coupés already exploited, have sent up vigorous shoots, which are doing as well as can be wished for. Unfortunately some of the climbers have done the same thing."

"The tract known as Thakurpur, which was cleared of all standing forest before handing it over to the cultivators, presents a very fair coppice growth, although the trees were not especially cut with this object in view, and the cultivators hardly desire it. It will be interesting to compare the growth here with that resulting from the coppice at Gohri, which adjoins it; this can be done after next rains. Of course no standards were left on Thakurpur, so the effects of frost will be visible there if anywhere."

In Tira (Saháranpur) the coppice growth is rapid and strong in spite of a fire which unfortunately passed over a large area last year, and on the fresh cut coupés the reproduction is very promising. The Korwa (Jaunsár) oak coppice is progressing satisfactorily, and some progress is made at Kálsi, notwithstanding that cattle have not been entirely excluded.

8.—Communications and Buildings.

38. *Expenditure.*—The expenditure incurred during the year on communications and buildings is shown below :—

Division.	Roads and bridges.	Building.	Other works.	Total.	Percentage on gross expenditure of the year.	Remarks.
	Rs.	Rs.	Rs.	Rs.		
Direction	9	425	59	493	2·2	
Dehra Dún	2,290	3,025	15	5,330	10·4	
Saháranpur	604	2,653	45	3,302	14·6	
Jaunsár	3,726	7,625	79	11,430	6·6	
Total ...	6,629	13,728	198	20,555	7·7	
Total for 1887-88 ...	7,539	16,479	489	24,507	8·8	

The total is less by Rs. 3,952 than that of the previous year. The expenditure in Dehra Dún Division was less by Rs. 3,859 than that of 1887-88, and is within the amount (Rs. 6,000) suggested as annual expenditure at page 113 of the Working Plan. In Saháranpur and Jaunsár Divisions the expenditure exceeded that of the previous year by Rs. 854 and Rs. 206 respectively. The outlay on buildings alone was less than that of the previous year by Rs. 2,751.

39. *Roads and bridges.*—The detailed statement given in Appendix H shows total length of roads and number of bridges in the circle, as well as the work done during the year :—

	Roads and paths.			Bridges.			Cost.
	New roads constructed.	Total length of old roads.	Length of old roads repaired.	New bridges constructed.	Old bridges.	Number of bridges repaired.	
	M. chs.	M. chs.	M. chs.				Rs.
Direction	...	...	...	...	...	...	9
Dehra Dún ...	7 65	290 23	276 20	2	6	6	2,290
Saháranpur ...	0 25	99 40	98 40	5	3	3	604
Jaunsár	12 10	460 57	153 12	*Nil.*	69	23	3,726
Total ...	...	...	...	...	...	...	6,629

In Dehra Dún the principal works remaining to be done in order to fully open out the forests are the following, *viz.*, construction of the road through the Gohri coppice, metalling the road from the Banjarwála canal to the Mothronwála chauki, and forming a fair weather cart-road along the boundary line from Malhan to the Jumna.

In Saháranpur Division an additional sum of Rs. 430 was contributed by the District Board, and expended on the annual repairs of the Khára-Hardwar road. The principal works remaining to be done are, the improvement of the Khára-Hardwár road by the reduction of gradients and construction of small culverts, the renewal of the export lines, leading from this road to the southern boundary of the forest, and the construction of a good path from Mohand to Hardwár, halfway between the Khára-Hardwár road and the watershed of the Siwáliks. This is required as an aid to fire conservancy.

In Jaunsár Division an additional sum of Rs. 300 was received from the District Board and expended on the repair of the Chakráta-Tons road. The principal new works remaining to be executed are the following, *viz.* :—A 4 feet road from Thadiár along the Tons to the mouth of the Bámsugádh, and thence up the valley of that stream as far as the forest hut at Bámsu, a 2 feet path through the Sansog and Dádi forests, and a 10 feet cart-road from Ambári to the Dúghpathar depôt.

40. *Use of portable tramways for forest works.*—Referring to the Inspector-General of Forests' Circular No. 6 of 2nd May, 1889, regarding the use of portable tramways for the extraction of forest produce, the opinions of the divisional officers have been called for and are as follows :—

The Deputy Conservator of the Dún states that—

"No portable tramways have been introduced, and as a rule the country would not admit of their use, but it may be possible that a short tramway from the Gohri and Khairi stored coppices to the Ganges would facilitate export, though whether it would be cheaper than the present system of cart-roads is a matter for careful consideration."

The Assistant Conservator of the Saháranpur Division states—

"That he does not consider that such means of export would be suitable for the Saháranpur Division as the amount of heavy material to be exported is small, and the question of transport by means of carts presents no difficulty."

In the Jaunsár Division this question was carefully considered by Messrs. Moir and Hearle in connection with the preparation of the Deoban Working Plan and finally

abandoned. It may be stated, however, that at two places in the Deoban range, the first above Mohna and the second near Pandáwa, lines for wheeled tramways were actually laid out, but as it was found impossible to avoid formidable precipices, the projects had to be abandoned on the grounds of expense. It may be mentioned that the old tramways at Lambatách and Mundhol worked well, and that the plant is still in stock and will be again used when a suitable opportunity presents itself. Experience has, however, shown that for hilly countries the system of sledge road now in use at the Deota Forest of the Jaunsár Division is much preferable for forest export works to wheeled tramways, as they are much cheaper, and the sledges can naturally be worked on a much steeper gradient than wheeled trucks.

41. *Buildings.*—The total expenditure was less by Rs. 2,751 than that of the previous year. This is due to the exercise of more economy in accordance with the Government orders on the last annual report, also to the fact that all the most necessary buildings in the three divisions have now been completed.

The following statement compares the expenditure on new buildings with the expenditure incurred during the former year :—

New Buildings.

Division.	Officers.	Range Officers.	Guards, &c.	Total.
	Rs.	Rs.	Rs.	Rs.
Dehra Dún	663	30	1,215	1,908
Sahárunpur	1,531	497	236	2,264
Jaunsár	4,353	127	566	5,046
Direction	...	...	133	133
Total, 1888-89 ...	6,547	654	2,150	9,351
Total, 1887-88 ...	6,437	55	4,244	10,736

The total expenditure on new buildings was therefore Rs. 1,385 less than during the previous year.

The principal expenditure incurred was in Jaunsár where the sum of Rs. 4,353 was expended on the completion of the new divisional buildings at Chakráta for which rent is paid.

The total amount spent on repairs was Rs. 4,377, which is a necessary charge and cannot be avoided.

The principal expenditure under this head took place in Jaunsár, where the severity of the climate naturally causes much damage to the existing buildings.

Considering that there are 255 buildings to be maintained in the three divisions, the expenditure incurred cannot be considered as excessive.

The expenditure during the year may be distributed thus :—

In the Direction Division Rs. 425 were spent thus :—

	Rs.
Repairs to the Forest School Buildings	292
Completion of carpenter's workshops and store	133
Total ...	425

It is to be regretted that these repairs were not much more extensive as the School buildings are reported to be in a dangerous condition.

The expenditure in Dehra Dún was as follows :—

	Rs.
Repairs to existing bulidings...	1,117
Construction of officers' rest-houses	663
Ditto Range officers' house	30
Ditto Guards' chaukis	1,215
Total ...	3,025

For the accommodation of controlling officers, there are now five first class rest-houses, one second-class rest-house (at Parduni) and three grass huts.

The Working Plan contains a suggestion that four additional first-class houses should be built at Sabhawála, Tháno, Jhabrawála and Bibiwála, as well as of four additional second-class houses at Jhájra, Assarori, Bullawála and Kánsrao. The present divisional officer considers that of these only the houses at Sabhawála, Tháno and Kánsrao are required, but he would make a first-class house at Kánsrao and four second-class houses at Tháno and Sabhawála, &c. Houses should be built at Tháno and Sabhawála in the style of that at Parduni, which is constructed of sun-dried bricks, and has a concrete floor and a thatched roof. It consists of a good-sized sitting room, with a small bed-room and bath-room on each side of it. The front of the house is shaded by a verandah. A house is required at Kánsrao, and the question of the style in which it should be built will be further reported on.

The old and very inferior guards' chaukis are gradually being replaced by buildings of a better style.

The expenditure in Saháranpur was as follows :—

					Rs.
Repairs to existing buildings ...	...	...	...	...	389
Construction of officers' rest-houses	...	...	...	...	1,531
Ditto Range officers' houses	...	...	...	...	497
Ditto Guards' chaukis	...	...	...	...	236
			Total	...	2,653

A rest-house for Controlling Officers is under construction at Kasumri, and this will complete the line of these buildings from the Ganges to the Jumna, with the exception of the Bádshahibágh halting place, where there is a Military Works bungalow. But this building is so much occupied that the Forest Officer cannot make use of it without permission previously obtained from the Executive Engineer at Chakráta, and it is desirable to construct a small house for him in the Pardumi style. A good deal yet remains to be done in the way of providing proper accommodation for range officers and guards, and this work will now be prosecuted.

In Jaunsár the outlay on buildings was as follows, *viz.* :—

				Rs.
Repairs to existing buildings and miscellaneous charges	...	...	...	2,579
Construction of divisional house at Chakráta and out-buildings			...	4,353
Ditto ditto,	Range officers' houses	...	...	127
Ditto ditto,	Guards' chaukis and clerks' houses		...	566
		Total	...	7,625

The principal work consisted in the completion of the Divisional Officers' Headquarters buildings at Chakráta at a total cost of Rs. 8,714 for five buildings, the actual cost of the bungalow having been Rs. 6,221. This represents a reduction of 25 per cent. on the ordinary Chakráta rates for such buildings. In addition to this house, for which a monthly rental of Rs. 56 is paid, there are now four first-class and 11 smaller rest-houses in the division, and the accommodation provided for controlling officers may now be considered sufficient for ordinary purposes.

A small hut is required near the mouth of the Dhárágád for the use of the Divisional Officer when supervising the floating of sleepers down that stream during the rains, and other huts of this kind may be needed from time to time as the scene of the timber works change. Two or three more Range Officers' houses and Guards' chaukis are also required, and the depôt buildings at Dághpathar should be improved.

The accompanying Appendix (J), which takes the place of Appendix (F) of last annual report, represents the total number of buildings of the circle classified in the usual manner. The increase in the number of buildings is 20 during the year.

CHAPTER IV.

Yield and Working

General account of the operations.

42. *Statement of main facts, Appendix E.*—The statement of main facts prescribed in G. O. No. $\frac{635F.}{845-5}$, dated 4th October, 1888, is given in appendix E and calls for no special remarks.

43. *Statement of trees felled, Appendix A.*—The accompanying Appendix A represents the number of trees felled, and has been drawn up in the usual manner.

The following statement, abstracted from Appendix A in the form given at para. 15 of the review of last annual report, shows the total number of trees felled in all the three divisions as compared with the former year.

Division.	Selection fellings.		Thinnings.		Clearances.		Total.	
	Number of trees.	Cubic feet.	Number of trees.	Cubic feet.	Number of trees.	Cubic feet.	Number of trees.	Cubic feet.
Dehra Dún... 1887-88,	2,756	28,553	63,835	265,973	780	1,007	67,371	295,533
Dehra Dún... 1888-89,	1,827	9,630	131,870	407,111	6	12	133,703	416,753
Saháranpur, 1887-88,	125	3,967	3,464	4,533	...	...	3,589	8,500
Saháranpur, 1888-89,	32	66	83,477	69,027	10,016	20,000	93,525	89,093
Jaunsár ... 1887-88,	10,835	952,185	468	468	3,050	12,121	14,353	964,774
Jaunsár ... 1888-89,	9,632	803,595	...	...	10,000	39,817	19,632	843,412
1887-88,	13,716	984,705	67,767	270,974	3,830	13,128	85,313	1,268,807
1888-89,	11,491	813,291	215,347	476,138	20,022	59,829	246,860	1,349,258

The principal increase is under thinnings in the Dún, due to more extended operations in accordance with the provisions of the working plan, *i.e.*, more forests are now being worked. There is a considerable increase under clearances in the Jaunsár Division due to the extended coppice operations at the Kálsi forest. Mr. Hearle, in his working plan, states that it is not necessary to count the trees in coppiced areas, sold at so much per acre, nor in the coupés felled departmentally, so that the number of trees felled in Jaunsár under clearances has only been estimated.

44. *Produce removed.*—The statement given below abstracted from Forms 54 and 55 shows the total amount of produce removed from the Forest during the year and by whom. This form has been drawn up in accordance with para. 14 of the Government Review of last annual report.

	In cubic feet.							
	Class.				By whom removed.			
	Total outturn.	Selection fellings.	Clearances.	Thinnings.	Government Agency.	Purchasers.	Free grants.	Right holders.
Dehra Dún Timber ...	215,250	3,856	7,382	204,012	38,053	176,228	969	...
Dehra Dún Firewood ...	768,892	...	631,792	137,200	180,074	382,710	...	206,208
Dehra Dún Minor produce, Rs.	19,598	...	...	...	...	18,745	...	853
Saháranpur Timber ...	4,168	66	...	4,102	1,837	2,179	152	...
Saháranpur Firewood	164,830	...	20,000	144,830	89,950	74,880	...	...
Saháranpur Minor produce, Rs.	33,709	...	...	...	...	33,044	...	665
Jaunsár ... Timber ...	563,995	558,896	5,039	60	217,289	349,151	2,200	95,355
Jaunsár ... Firewood ...	1,623,979	125,051	1,498,928	...	157,355	3,984	...	1,462,640
Jaunsár ... Minor produce, Rs.	9,676	...	...	...	945	1,911	...	6,820
Gross Total Timber ...	783,413	562,818	12,421	208,174	257,179	427,558	3,321	95,355
Gross Total Firewood ...	2,557,801	125,051	2,150,720	282,030	427,379	461,574	...	1,668,848
Gross Total Minor produce, Rs.	62,983	...	...	...	945	53,700	...	8,338

The following statement compares the amount removed by Government agency and by purchasers during the two last years :—

Description of produce.		Government agency.				Purchasers.			
		Dehra Dún.	Saháran-pur.	Jaunsár.	Total.	Dehra Dún.	Saháran-pur.	Jaunsár.	Total.
		C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Timber ...	1887-88 ...	54,637	1,657	2,36,728	2,93,022	1,89,561	10,515	3,91,508	5,91,584
	1888-89 ...	38,053	1,837	2,17,289	2,57,179	1,76,228	2,179	2,49,151	4,27,558
Firewood ...	1887-88 ...	2,75,109	36,890	1,34,286	4,46,285	2,56,482	89,372	24,143	3,69,997
	1888-89 ...	1,80,074	89,950	1,57,355	4,27,379	3,82,710	74,880	3,984	4,61,574

The decrease in the amount of timber removed by Government agency is due to the extra sale of rejected sleepers and miscellaneous timber from the Dághpathar Depôt, Jaunsár Division, during 1887-88, whereas little timber of this description was sold during 1888-89. In the Dún Division 8,822 cubic feet less drift timber were sold at the auction sales at Hardwar. The decrease under timber removed by purchasers is due to fewer chír trees having been sold in the Jaunsár Division. In the Dún fewer standing trees were sold to contractors.

45. *Yield in produce.*—Appendix B has been drawn up in the usual manner and exhibits the total quantity and value of the yield in produce.

The following statement compares the value of the produce with that of the former year and has been abstracted from Appendix B :—

	1887-88.		1888-89.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber	11,47,220	3,21,456	7,83,413	3,25,422
Firewood	27,75,322	1,04,909	25,57,801	93,608
Bamboos, grass and minor produce	...	55,480	...	62,983

Under timber the increase in value is mainly due to the sale of over a lakh of cubic feet of timber shown as lying in the forest in the Dehra Dún Division at the close of last year, and the proceeds from which are shown under the sales of 1888-89.

The difference under the quantity and value of the fuel removed occurs in the Dún Division, where the amount of fuel removed by grantees is calculated at a much lower figure than during the previous year. Mr. Smythies states that he is unable to explain how the estimate for this fuel was arrived at during the former year, and his calculations for the year under report seem to be based on trustworthy data.

The increase under minor produce is due to better sales of bamboos in the Dún and Saháranpur divisions, and to much higher auction sales of minor produce in the Saháranpur division, due to greater competition.

Appendix (C) gives a *résumé* of the departmental operations during 1887-88 and the year under report. The total value of issues is Rs. 2,74,355 as compared with Rs. 2,44,114 during the former year. This represents an increase of Rs. 30,241 and is mainly due to the higher price obtained for the timber sold during the year in the Jaunsár Division as compared with the former year. More firewood was also sold to the Commissariat Department.

46. *Value of timber, &c.*—The value of timber and other forest produce in hand at the close of the year decreased from Rs. 1,34,968 to Rs. 1,12,700. This is mainly due to the sleepers in hand being valued at a lower rate than at the close of the former year, their value having now fallen from Re. 1-11-0 to Re. 1-0-0. Most of the other

stock in hand at the close of the year was less than at the end of 1887-88 and consequently the value is less also.

Departmental Operations.

47. *Trees felled.*—The number of trees felled as compared with previous year is as follows :—

	Selection fellings.		Clearances.		Thinnings.		Total.	
	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.
Average of 4 preceding years...	3,254	2,31,769	433	2,250	15,738	47,059	19,425	2,81,078
1887-88	5,027	4,39,389	3,590	12,382	29,730	1,44,220	38,347	5,95,991
1888-89	6,901	4,71,506	9,627	35,348	1,10,176	1,80,626	1,26,704	6,87,480

As regards species, the fellings as compared with last year's figures, are—

Species.	Selection fellings.		Clearances.		Thinnings.	
	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.
Sál	783	968	540	...	7,867	13,777
Sain	...	...	...	...	...	382
Tun	26	5	...	...	...	...
Sissu	200	37	...	...	246	...
Deodar	2,812	2,787	...	...	367	...
Fir and pine	589	784	...	...	63	...
Oak	580	1,045	3,050	1,500	38	...
Miscellaneous	37	1,275	...	8,127	21,149	96,017
Total ...	5,027	6,901	3,590	9,627	29,730	1,10,176

Under selection fellings the increase is principally in Jaunsár, where 327 extra chír and pine trees were felled for departmental chír *karri* sawing, also for the fuel supply of Chakráta. A large number of miscellaneous trees were felled at Lurli cantonment block for the Chakráta bazár sales. Under clearances the increase is mainly due to the Kálsi coppice fellings in the Jaunsár Division. The great increase under thinnings is only nominal, and is due to the extension of coppice operations in the Saháranpur Division. The real increase is only 13,000, and the difference is due to the fact that about 67,900 trees should have been shown in this form last year whereas only 900 were shown by an omission in the Saháranpur form.

48. *Trees marked for works of 1889-90.*—In accordance with the provisions of the Dún Working Plan, the following trees have been marked up to the date of the submission of the report and which will be offered for sale at the August auction :—

Sál	18,516
Sain	3,040
Kokat	15,780
Fuel trees	72,203
Total ...	1,09,539

This work is of a most arduous nature and takes up much of the time of the establishment during the cold weather.

In the Jaunsár Division, owing to the early fall of snow, no trees were marked for the works of 1889-90, but this work can be easily accomplished in April before the sawyers come up.

49. *Outturn of timber and other produce removed by departmental agency.*—The outturn of timber and other produce removed by Government agency as compared with the former year was as follows :—

	1887-88.		1888-89.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber, cubic feet	2,56,513	2,42,698	2,17,124	2,16,983
Poles and saplings, „	36,509	11,528	40,025	20,728
Firewood, „	4,41,693	34,506	3,37,926	27,554
Charcoal, „	4,592	1,153	6,503	1,600
Bamboos, scores	1½	1	3	1
Fodder grass loads and minor produce	...	31	...	944
Total ...	...	2,89,917	...	2,67,810

The decrease in the quantity of timber is principally due to the fact that fewer sleepers were sawn in the Jaunsár Division than during the former year, there being a large stock in land and no funds being available for more extensive operations.

The main difference of the outturn of fuel occurs in the Dún, and this is shown by the Deputy Conservator to be due, 44,000 cubic feet less fuel being collected from the Ganges drift and about 51,000 cubic feet less fuel being brought from the forest.

In the Jaunsár Division there was an increase in quantity, but a decrease in value, which is due to a large quantity of inferior fuel having been cut at Kálsi and Lorli Forest.

50. *Sales to Public departments.*—The following statement shows the sales to public departments as compared with former years :—

Year.	Amount of revenue.			Cost to Forest Department.			Surplus.
	Due.	Received.	Outstanding.	Timber expenses A I.	Quota of other charges.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Average of last seven years,	1,27,719	1,27,075	644	76,969	9,110	86,079	41,640
1887-88	2,23,724	2,23,029	695	1,17,898	15,061	1,32,959	90,765
1888-89	2,47,370	2,33,591	13,779	1,19,486	12,371	1,31,857	1,15,513

From this it will be seen that the sales were much more extensive than during the former year, which was due to the following causes :—

(1) A larger quantity of timber was delivered to the Executive Engineer, Chakráta, owing to the erection of new barracks.

(2) More fuel was delivered to the Commissariat Department, owing to the location of an extra regiment at Chakráta during the rains.

(3) A larger quantity of fuel was delivered to the Roorkee Workshops than during the former year.

The outstanding includes a bill for 8,063 sleepers valued at Rs. 13,606 delivered to the Rajputana and Malwa Railway, in accordance with the three years' agreement, but which the Engineer-in-Chief could not pay for during the year owing to want of funds.

51. *Stock Account, Appendix D.*—The quantity and value of stock as compared with the former year is shown in appendix D. This statement shows an increase of 7,729 cubic feet of timber and decrease in value of Rs. 12,061. There is an increase

of 17,764 cubic feet in the Jaunsár Division due to the larger number of metre gauge sleepers in hand; also to a larger number of deodar and pine scantlings being in hand at the end of the year.

In the Dehra Dún Division there is a decrease of 9,896 cubic feet due to disposal of last year's stock.

Under firewood and charcoal there is a total decrease of 56,526 cubic feet. Of this 42,446 cubic feet occurs in the Jaunsár Division due to the usual balance of fuel at Chakráta, having been taken over during March by the Commissariat Department, and in the Dún there is a decrease of 14,080 cubic feet due to an extra quantity of fuel having been supplied to the Roorkee Workshops.

52. *Departmental operations during 1888-89.*—Including the sales to public Departments, the departmental works conducted during the year were as follows :—

Dehra Dún Division.

(1) Collection of Ganges drift timber.
(2) Supply of timber to Ganges Canal bunds.
(3) Felling trees for tea planters in Chandrabani.
(4) Stored coppice fellings near Gohri.
(5) Ditto ditto Khairi.
(6) Checking of export on the river Ganges.

Saháranpur Division.

(1) Fellings at Lakarkot.
(2) Coppice fuel fellings at Tira.
(3) Ditto ditto Lálwála.
(4) Ditto ditto Bádshahibágh.
(5) Ditto ditto Ránipur.
(6) Ditto ditto Pathri.

Jaunsar Division.

(1) Sawing of 124,305 metre gauge sleepers at Deota, Raiengarh Dedragád, and Mundali forests.
(2) Carriage of 128,842 metre gauge sleepers from the forests to the river depôts.
(3) Floating of 114,626 sleepers from the hill depôts to Dághpathar.
(4) Sawing of 23,770 pieces of timber for the military works and depôt sales at Chakráta.
(5) Cutting and carriage to Chakráta of 117,865 cubic feet of fuel for the Commissariat and depôt sales.
(6) Completion of the rafting to Delhi of 101,700 metre gauge sleepers delivered to Rajputana and Malwa Railway during April, 1888, and half of the rafting of 102,015 sleepers to be delivered during April, 1889.

The following is a description of the works done in each of the divisions during the year abstracted from the divisional reports :—

53. *Ganges drift timber collections.*—

Dehra Dún Division.

(1) The collection of drift timber on the Ganges has now been worked by the Dún Division for some years with considerable success.

The following table shows the result of the year's operations :—

Balance on 1st April, 1888.	Collected during the year.	Total.	Sold during the year.	Balance on 31st March, 1889.
Cubic feet.	Cubic feet.	Cubic feet.	Cubic feet.	Cubic feet.
59,858	46,540	106,398	74,526	31,872

The fuel is taken to the Roorkee Canal Foundry and sold at Rs. 22 per 100 maunds. The timber is collected at Gohrighat and Hardwár and is generally sold by auction

though some sheesham logs were disposed of at a fixed price, *viz.*, 12 annas a cubic foot, before the sales took place. Most of these logs came from Birbhadder, 303 logs having been sold during the year.

A great improvement took place in the sales effected on the Ganges, some outside contractors from Umballa and elsewhere having come to the Lalta Rau auctions, so that there was a fair competition for the timber sold, and good prices were obtained.

54. *Fellings for the Ganges Canal bunds at Tirsal and Bahera blocks.*—

(2) The supply of timber for the Ganges Canal head works has been now going on since 1885.

The following statement shows the amount of timber delivered, the value received and the cost of delivery :—

Year.	Class of timber.			Total number.	Value received.	Cost of delivery.	Remarks.
	Ballas.	Ballis.	Tors.				
					Rs.	Rs.	
1885	1,154	3,486	8,390	13,030	7,836	3,434	All kokat timber.
1886	1,234	3,565	7,943	12,742	8,245	4,825	Ditto ditto.
1887	1,090	3,263	6,299	10,652	6,921	3,756	Ditto ditto.
1888	1,076	4,376	8,024	13,476	9,761	3,611	40 kokat ballis, remainder sál.
Total ...	...	...	...	49,900	32,763	15,626	

The net profit on these transactions amounts to Rs. 17,137, or about 52 per cent. on the gross revenue, and about 5½ annas per piece of timber delivered. Great difficulty was experienced by the Deputy Conservator in complying with the canal indent for 1889; and a slight deviation from the provisions of the Working Plan had to be made as already explained in para. 8.

Under the circumstances Mr. Smythies is of opinion that the best plan in future will be to discontinue the direct method of dealing with the Canal Department, and to adopt the plan of selling to contractors whatever poles, &c., are marked in the improvement fellings, strictly in accordance with the Working Plan. This system would probably bring in more revenue than the plan of supplying direct to the Canal Department.

55. *Coppice Fellings at Gohri and Khairi.*—The stored coppice fellings at Gohri in the Nichla-Suswa Block, and at Khairi in the Ghamandpur Block were undertaken in accordance with the provisions of the Dehra Dún Working Plan. The object of these coppices is to supply a sufficient quantity of straight poles for the future supply of the canal bunds.

The following is a description of the work done at the Gohri and Khairi coppices :—

The felling takes place over parallel lines, or belts 100 feet broad; and between two consecutive belts a strip of forest, 200 feet broad, is left untouched. The area actually cut over was 96 acres and the cost was as follows :—

	Rs.	a.	p.
(1) Laying out the lines	117	12	6
(2) Cutting the coppice	183	12	11
(3) Making a straight road	61	10	11
Total ...	363	4	4

(or about Rs. 3-12-6 per acre).

The number of standards left on the ground was 4,264, including those on the banks of nalas, or about 44 per acre; the Working Plan prescribed at least 30 standards per acre. The amount of produce removed cannot yet be given; it will come into next year's report. The cost of removing the produce may be estimated as follows :—

	Rs.	a.	p.
Carting to Gobrighát per 100 maunds	6	0	0
Stacking at	0	8	0
Rafting to Roorkee	6	0	0
Navigation fees	0	8	0
Carting to workshop	1	0	0
Total ...	14	0	0

The produce, which is nearly all fuel, is sold to the Canal Foundry at Roorkee at Rs. 22 per 100 maunds, thus leaving a profit of Rs. 8.

The profit depends on the distance over which carting to the river bank has to be done, and this will be more expensive the further the fellings proceed; but it will still pay to export the produce as fuel for some time to come. At the end of the third year, the intermediate stripes now left untouched can be attacked, as it is hoped by that time that the coppice shoots will be sufficiently high to be out of the region of frost. The coppicing of trees under two feet girth has been carefully done under the superintendence of an experienced forest guard by a trained band of coolies. The stored coppice felling in the lower part of the Ghamandpur block was also commenced near Khairi. The object and character of the work are the same as that of Gohri. Here the lines run at right angles to the direction of the outer boundary line between pillars 121 and 116. The area already cut over is 98 acres. The lines are 100 feet broad, and the untouched intermediate belts are 300 feet broad. The number of standards left is 4,038 or about 41 per acre.

The cost is as follows:—

	Rs.	a.	p.
(1) Laying out the lines	134	13	1
(2) Coppicing	222	4	3
Total, Rs.	357	1	4

or about Rs. 3-10-3 per acre—a result remarkably near that of the Gohri coppice. The export of the produce from Khairi has not yet begun. The ground is hilly and the carting of fuel will be expensive; it is proposed to convert it into charcoal next November. The area prescribed in the Working Plan is 200 acres, but until it is known whether there will be any profit the work has been suspended.

From the above remarks it would appear that the last operation is not likely to prove a financial success.

56. *Clearing of the Thakurpur district land.*—The clearing of Thakurpur was completed during the year and yielded a considerable amount of timber and fuel; 282 sheeshum and other logs containing 3,152 cubic feet were sold at the Lalta Rau auction sale.

Saháranpur Division.

57. *Coppice operations at Lakarkot, &c.*—The following is a description of the departmental operations carried out in the Saháranpur Division during the year:—

The felling at Lakarkot this year took place in Compartment No 5 continued from last year. The outturn was small, as the thinning had to be done very carefully on account of frost, which is to be feared here. About 600 acres were thinned, the total of trees felled being $\frac{\text{Sál } 6,577}{\text{Kokat } 2,871}$ as compared with Sál 25,170 and Kokát 12,326 felled last year, the outturn in cubic feet in ballas, tors and ballis being 1,807 cubic feet against 1,657 cubic feet last year. Rs. 96 were obtained from the balance of last year's operations; the fellings of this year have not yet been sold. Besides this, part of compartment No. 7 was marked for felling to be done in 1889-90, the area thus marked being about 200 acres.

58. *Areas of coppice fellings.*—The following table shows the areas and details of the other coppice fellings:—

		Number of trees felled.	Area in acres.	Expenditure.	Rate of felling 100 trees.	Price obtained.	Net profit to Department.
				Rs.	Rs.	Rs.	Rs.
Tíra	1887-88	18,997	75	203	1·08	620	417
	1888-89	19,235	75	155	0·8	575	420
Lálwála	1887-88	none.	...	...	...	...	...
	1888-89	13,072	70	204	1·5	600	396
Bádshahibágh,	1887-88	none.	...	...	...	...	...
	1888-89	19,646	45	163	0·8	230	67
Ránipur	1887-88	none.	...	...	...	...	...
	1888-89	16,814	55	138	0·8	220	82
Pathri	1888-89	2,318	10	15	0·6	30	15

There is a large demand for fuel, which is exported to Roorkee and Saháranpur.

Operations in Pathri will be discontinued in future, since the frost is too severe to allow coppice operations in such a bad forest.

The coppice operations in this division are carried only by departmental agency, but Mr. Mercer thinks that the work is too expensive, and suggests that it be done through the medium of contractors in future. This may be tried next year, but from experience gained in Jaunsár and in the Dún it has been demonstrated that it is very difficult to get the contractors to cut the stools properly.

Jaunsár Divisional Works.

59. *Deota Forest.*—The following is a description of the departmental works in the Jaunsár division.

At the Deota Forest the fellings were completed at the Jaurási and Kanga blocks and then continued in Patangni, about half of the area of the latter block having been marked over.

The following trees were felled :—

	Green.	Dry.
Jaurási	50	4
Kanga	699	113
Patangni	1,002	119
Total ...	1,751	236

or a total of 1,987 green and dry trees. These trees produced 88,986 I and II class sleepers, together with rejections. The percentage of rejections and II class sleepers to the whole outturn stood thus during 1888-89 :—

Percentage of rejections to the whole	6·05
„ II class sleepers „	5·85

The passing of the sleepers was done by Forest Ranger Sadanand, Forester Dharm Singh, also a student called Eggya Narayan Shastri, and as the percentage of rejections during the previous year amounted to 5 per cent. only, it may be presumed that the accepted sleepers during 1888-89 are of a better quality than during the former year. The outturn per tree is 44·8 against 51 during the previous year. This decrease is attributed to the fact that the trees in Patangni are much smaller than those in Kanga, also to there being very little fallen timber in that block, whereas there was a considerable quantity in Kanga. The sawing and carrying arrangements were the same as during the former year, and by the same contractors, who are trustworthy men and thoroughly acquainted with the work.

Owing to the popularity of this work, &c., the contractors have agreed to a reduction of the logging and sawing rate from Re. 0-3-6 per sleeper during 1888-89 to Re. 0-3-0 per sleeper during 1889-90.

The total number of sleepers launched at Thadiár from 1st to 11th November, 1888, was 82,149, and at the close of the year 45,687 remained in the forest.

60. *The sledge road.*—The sledge road worked admirably during the year and is now a most popular system of transport. It is principally worked by local men, most of whom are now expert sledge men, and no accident of any kind occurred during the year.

The total number of sleepers sledged during the year was 65,800 at a cost of Rs.756-7-9 against Rs. 4,318-2-0, which would have been the cost had the sleepers been carried on men's backs.

The following is a statement of the financial result of the sledge road up to the end of 1888-89 :—

Year.	Original cost.	Cost of repairs.	Number of sleepers sledged.	Sledging cost.	Construction and repairs of cooly carrying path.	Cost of carriage by coolies @ Re. 0-1-0 per sleeper and commission @ Rs. 5-0-0.	Net saving to Government.
	Rs.	Rs. a. p.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1884-88	3,587	1,385 11 5	2,10,954	2,996 0 3	77 7 0	13,843 14 0	5,992 9 4
1888-89	...	282 0 1	65,800	756 7 9	14 12 0	4,318 2 0	3,294 6 2
Total ...	...	1,667 11 6	2,76,754	3,752 8 0	92 3 0	18,162 0 0	9,246 15 6

61. *Timber slide.*—The timber slide was put into thorough order, and extensive repairs and improvements executed during the hot and cold weather of 1888. The nature of the work was—

1*st.*—Renewing a large amount of the timber.

2*nd.*—Rebuilding the piers of some of the bridges and renewing the beams.

3*rd.*—Cleaning the nala, which had got choked with boulders and rubbish, and improving the waterway of the bridges.

4*th.*—Building extra bunds to protect the slide from high floods. The total cost of these repairs amounted to Rs. 2,599, and the slide may be said to be now in a thorough state of efficiency.

The sliding was the most successful on record, the total number of sleepers slid having been as follows :—

During the rains ...	...	...	...	...	83,548
During February and March	...	...	...	...	9,089
		Total	...	...	92,637

The slide was worked on two occasions at night during periods of moonlight, and, with careful supervision on the part of the establishment, this operation has now been successfully accomplished. The following is a comparison of the day and night sliding on these two occasions, the total number slid having been 15,326 during the night :—

Date.	Day.	Night.	Total per date.
July 22nd	1,482	1,200	2,682
August 24th	1,352	1,290	2,642

The cost of the day sliding was 1·44 pies per sleeper and of the night sliding 2·22 pies per sleeper, the difference being due to the necessity for employing extra men as chaukidárs during the night, cost of torches, &c. The work was done as usual on daily labor, which is much more satisfactory and less expensive than on contract, the former contract price having been 3 pies per sleeper.

The magnetic bells did not arrive in time to be used during the working season, but the line will be set up for the working of 1889. The consequence was that a good many jams took place, and considerable damage was done to the slide and sleepers in consequence.

62. *Chír operations in the Deota range.*—With the object of clearing the Chatra fire line and observing the effect of the removal of the trees on the annual drying of the grass 151 chír trees of all sizes—from 1 foot to 11 feet girth—were felled over an area of half a mile in length and 300 feet in breadth. These were sawn up into 11′ and 12′ karris 5″ × 4″ during the cold weather, the total outturn being 5,389.

The outturn per tree is 35·6 which, considering the small size of some of the trees, may be considered satisfactory.

All the karris have been carried to a safe depôt on the bank of the Tons, and will be floated during November along with the sleepers.

63. *Deogarh Range, Raiengarh Forest.*—At the Chúchpur or Raiengarh forest 174 green and 29 dry trees were felled, and cut up into 13,697 first and second class M. G. sleepers. The trees felled were marked by Sadanand, Forest Ranger, and the passing was done by Forester Birkodar in a fairly satisfactory manner. The percentage of rejections is stated to be 7·6, and the percentage of second class sleepers to the whole was only 3·9.

All these sleepers, together with 10,720 of the former year, were carried down to the Pabar depôt, the total number launched having been 24,409.

All available deodar timber from this forest has now been exported, and the remaining trees only consist of branchy ones suitable for producing seed, but useless for timber. The works have therefore been closed as far as deodar export consists, and it is to be hoped that a market for the vast supply of rai and morinda timber available from this forest will yet be found.

A considerable quantity of kail timber also exists at this forest, for which it is hoped that a better market will spring up.

64. *Kotigád Range, Cheo Forest, Dedragád.*—The sawing up of fallen timber and dry trees at this forest was continued, but was suddenly brought to a close by the looting of the banya's shop at Cheo village by the neighbouring villagers in connection with the old feud between Kuintal and Tehri Garhwál about the Dedragád Forest. Ten men were arrested by the Deputy Conservator and sent to Tehri in June, 1888, and some kind of enquiry into the case apparently took place last March, but the result has not been yet heard.

The total number of first and second class sleepers sawn was 2,535 only, the rejections being 5·1 per cent. and the proportion of second class 4 per cent. of the whole.

The total number of sleepers launched at the end of August from the Cheo forest was 8,217.

The floating down the Kotigád cost about 3 pies per sleeper, the work having been done on daily labor as usual.

65. *Floating sleepers to Dághpathar from the Hill Depôts.*—The floating operations of the year were most successful and no hitch of any kind took place.

The launching from Cheo depôt in the Kotigád was commenced on 1st September, from Pábar depôt on 1st October, and from Thadiár on 1st November, and all the sleepers met at the Tuini bridge about the middle of November.

The total number launched was 1,14,625, which is the largest batch yet taken down. The usual arrangements were in force with regard to the floating which was accomplished in a much more expeditious manner this year than formerly, the sleepers having arrived at Dághpathar early in January. The number of sleepers short on arrival was 1,386 or 1·2 per cent. only of the whole batch.

The cost of the floating this year was Rs. 1,520 only against Rs. 2,166 during the previous year. The cost per sleeper was therefore 2·3 pies against 3·7 pies during last year.

66. *Works at Mundali, Bawár range.*—In accordance with the provisions of the revised working plan the sleeper operations at the Mundali forest were commenced in May, 1888, and confined to the sawing up of fallen timber and to the felling and sawing up of 235 dry and half dead trees at compartments 11, 12, 13 and 15, the total outturn being 10,405 first and second class sleepers.

The timber at this forest does not saw up well, and about 10 per cent. of the trees felled were found to be quite hollow and nearly useless.

The fallen timber is also much scattered, and in consequence of these drawbacks the rate for logging and sawing had to be fixed at Re. 0-3-9 ; but during the current year it has been reduced to Re. 0-3-3, which is still 3 pies more than at Deota.

About 5,000 of the sleepers sawn were carried to the Daikhera Depôt during the year, and the remainder were at the Bassair Depôt or in the forest when the year closed.

67. *The Dháragád Export Works.*—The Dháragád export works were commenced and completed during the year and consisted in the following operations :—

1*st*.—Construction of 5 miles and 10 chains of 3 feet sleeper carrying path from a point below Mundali Bungalow down the Grigat Dogra and Dháragád to the Daikhera Depôt, situated 5½ miles from the banks of the Tons river, and from which point the sleeper floating will commence. The cost of this work was Rs. 935.

2*nd*.—The blasting of 5 miles and 55 chains of the Dháragád so as to render it fit for floating sleepers during the rains. A weir for catching the sleepers was also constructed at the mouth of the Dháragád and all other preparations made so as to facilitate the floating and catching of the sleepers with the minimum of establishment. The cost of the work wsa Rs. 2,672 or about Rs. 500 per mile, including the cost of the weir, path, bridges, chauki, &c.

68. *Chir and kail resin tapping operations in the Bawar range.*—In connection with G. O. No. 35F., of 11th January, 1888, 1,024 chír and 501 kail trees were tapped at the Bogur, Málon, Ninus and Kathian Blocks, the number of cuts or blazes being 2,873. The work was at first started about the end of April under the auspices of Dr. Warth, assisted by 5 or 6 students, but on the withdrawal of the Forest School, the work was managed by the local establishment in a satisfactory manner. The cuts were ordered by Dr. Warth to be made 12″ × 6″ to 9″ wide, but through the carelessness of one of the private students, many of them were spoiled and much resin lost. The cuts were renewed and lengthened about once a fortnight, so that at the close of the season, that is, 30th November, they had attained a height of about 24″ to 30.″ Various kinds of pots were used, such as zinc, tin and earthenware, the latter being manufactured locally.

The cutting of the blazes was done entirely with "bassulahs," the French tools which were tried by Dr. Warth having apparently proved a failure, or at least the local workmen could not use them. The resin was at first collected in a haphazard kind of a way, but eventually a regular system was introduced, by which one man took charge of 500 trees, so that the cost of collecting has now been much reduced.

The resin when collected is packed in kerosine tins, which are then soldered and two packed in each box. Those boxes, containing each about 50 seers of resin, were then transported to the Chakráta chauki on mules' or bullocks' backs, after which they were sent per cart to Dehra Dún. Some of the areas from which the resin was collected are fire protected, but others were fired under supervision from the top of the hill downwards, the grass being first cleared round about the trees, which are being tapped so as to reduce the injury to a minimum. The total number of maunds of resin collected was 107, out of which 98 maunds were sent to Dehra. A pause took place in the collecting from 15th July to end of August when the rains were heaviest. The average per tree was 2 seers 12¼ chattacks, per cut 1 seer 7½ chattacks, and per acre 14 seers.

The total cost of the tapping oprations, including cost of tools, pots, distilling apparatus, &c., amounted to Rs. 1,764 during the year, out of which Rs. 1,006 may be put down as capital expenditure for tools and pots; Rs. 758 only charged against the production of 107 maunds of crude resin. As already stated, 98 maunds only were actually sent to Dehra Dún to be distilled, and the total charges in connection therewith, as far as can be ascertained, apparently amounted to Rs. 7-15-4 or about Rs. 8 per maund.

According to Dr. Warth's article in the *Indian Forester*, the products of distillation will probably yield an average Rs. 8-8-0 per maund, and if the above figures are correct, this will only give a small profit of Re. 0-8-0 per maund.

Owing to the novelty of the work, however, the expenditure has been high and every effort will be made to keep it as low as possible in future; also, as the market for the produce improves, it may be possible yet to make a fair profit out of the scheme, which, however, does not look very promising at present. It is proposed to transfer the distilling apparatus for the present to Deoban and eventually to carry on the work in the forest.

69. *Deoban Range.*—Timber work during the year was confined to Bodyár, Kotikanasár, Kanjatra and Karamba, and fuel works were carried on at Bodyár, Khopti, Kanjatra, Mohna, Rora, Matkangra, Bandla, Korwah and Kálsi forests.

At Pandawa forest 63 trees were cut by the Military Works Department for lime-burning.

The total number of scantlings sawn in this range was 17,123 during the year. The total amount of fuel prepared was 1,43,475 cubic feet.

The principal timber work took place at Karamba, where 291 trees were felled and sawn up into about 60 different kinds of scantlings for the Military Works Department and depôt sales at Chakráta.

The sawing work was completed about the middle of October, but the carrying was brought to a sudden stop by an unusually early fall of snow on 24th November, so that a large quantity of the timber remained in the forest or at the Bhujkoti Depôt.

At the Kanjatra forest a number of Rai trees were felled, in accordance with the Inspector-General's suggestion, over the recent sawings in order to give more light, and a number of these trees were sawn up into planks, and the remainder were converted into fuel.

The fuel operations for the Commissariat took place at Khopti and at Snow View, but all carrying work was brought to a sudden stop by the early snow fall, so that a large quantity of fuel remained in the forest.

All the timber and fuel operations in the Deoban Range were conducted in accordance with the provisions of the Working Plan as far as was known—the plan not having been received during the year.

A large number of windfalls took place at Khopti and Snow View during the heavy storm of 20th September last.

70. *Coppice operations in the Deoban Range.*—The following statement gives the areas coppiced during the year and the cost of coppicing and the outturn of fuel from each coupé :—

Name of block.	Area coppiced.	Cost of coppicing.	Outturn of fuel in cubic feet.	Remarks.
Korwa	2·5	19 7 0	6,700	Compartment.
Ditto	6·5		5,600	No XX newly closed area.
Kalsi	2·5	4 11 3	Not known	Sold to Debi Bania for Rs. 450 above the village of Kálsi.
Ditto	13		19,125	
Total ...	24·5	24 2 3	...	

The coppicing of compartment XX at Korwah, 20 standards being left, was done by daily labor, and the work is much more satisfactorily done than at the 6½ acre plot or at the 13 acre area at Kálsi, which were done by contract.

All the fuel was sold, with the exception of 4,125 cubic feet, which remains at the Kálsi forest.

The outturn of the 2½ acre coupé, which was sold to Debi Bania at Kálsi for Rs. 450, together with 7,800 cubic feet of stacked fuel cut departmentally, is of course not known.

71. *Jumna River Range.*—On the transfer of Anant Ram, Forester, to the Dún Division, the river range was placed in charge of Keshawanand, Forest Ranger, assisted by Madho Ram, Forester. This arrangement has worked fairly well, and many important reforms and much economy has resulted from the careful manner in which the Forest Ranger has superintended the work, though at the same time it must be admitted that the duties of the two rangers are somewhat too arduous for him.

72. *Timber marks.*—The total number of new timber marks registered during the year was 10, also 10 of the old marks which had lapsed were renewed.

Out of a total number of 102 marks registered since the river control was established 52 only now remain in force, all the others having lapsed.

73. *Collecting passes.*—The number of collecting passes issued during the year was 38 for timber launched from the Native States, the total amount of which stood thus :—

Broad gauge sleepers	...	...	...	...	...	1,71,343
Metre ditto	...	...	...	...	...	1,64,682
Karris ...	...	...	...	...	...	2,29,145
				Total	...	5,65,170

Many quarrels and complications occurred during the year amongst the timber merchants with regard to the ownership and sale of their timber, and on several occasions the timbers had to be detained pending appeals to the civil courts.

74. *The boom at Dághpathar.*—From November to February the boom worked well and much timber was caught, but on the 24th February it was completely wrecked by a most unusual flood, regarding which a special report has been made.

As there was no time to get up new wire ropes from Calcutta or to saw up new timber, a temporary boom was erected of metre gauge sleepers, and which has worked fairly well up to the present.

A much stronger boom will be constructed at a more suitable point lower down the river in November.

75. *Floods in the Jumna.*—The year has been a remarkable one for the highest floods on record in the river Jumna, which were as follows :—

1*st.*—On the 20th of September the Jumna rose to a height, which topped by about a foot the great flood of 30th September, 1884, and carried away a considerable quantity of merchants' timber from the lower parts of the depôts.

2*nd.*—On 24th February the most unprecedented cold weather flood ever known took place, when the Jumna nearly reached its ordinary monsoon level and carried away about 1¼ lakhs of Government and merchants,' timber which it left scattered from Ganghewa to Rájghát, and a considerable quantity of which has not yet been recovered.

76. *Sleeper passing at Dághpathar.*—The Government sleepers, amounting to 1,13,240, arrived at Dághpathar early in January, but the Railway Engineer, Mr. MacIvor, did not arrive till the beginning of March, and owing to the damage caused by the flood, the examination had to be conducted partly at Dághpathar and partly at Rampur Mandi. The Engineer passed the sleepers at the rate of about 10,000 a day and asserted that they were of inferior quality. The consequence was that he rejected 9 per cent. at Dághpathar and 10 per cent. at Rampur Mandi. The sleepers were probably of much the same class as usual, and the difference in the percentage of rejections from the former year, which was 5 per cent., may be attributed to the fact that the Assistant Engineer on that occasion passed them at the rate of 20,000 per day.

77. *Rafting of sleepers to Delhi.*—Great reforms were made in the old rafting arrangements, and the cost was reduced from Rs. 11-8-0 per raft of 160 sleepers to Rs. 9; also the cost of ban rope was reduced from Rs. 1-3-9 to Re. 1 per maund. The rafting was, however, considerably interfered with by the delay in passing the sleepers.

78. *Drift wood of the Jumna.*—The drift wood of the Jumna, and Tons from the Mánisgád to Rájghát fetched Rs. 55 only, which is a curious fact, considering that the drift of the Ganges river is sold annually for about Rs. 5,000.

The catching and collecting of merchants' timber during the rains was principally done by the merchants themselves: nevertheless a considerable quantity was caught departmentally in the absence of the merchants' agents.

3. Removal of produce by purchasers.

79. *Trees felled.*—The following statement shows the trees felled by purchasers as compared with the previous year and the average of the four preceding years:—

Year.	Selection fellings.		Thinnings.		Clearances.		Total.	
	Trees.	Cubic feet.	Trees.	Cubic feet.	Trees.	Cubic feet.	Trees.	Cubic feet.
Average of four preceding years.	3,119	2,81,493	11,340	88,756	...	...	14,459	3,70,249
1887-88	6,744	4,12,027	38,037	1,26,754	138	684	44,919	5,39,465
1888-89	2,943	2,46,681	1,05,095	2,93,360	10,034	20,060	1,18,072	6,60,156

The decrease under selection fellings is mainly due to fewer chír trees having been sold in Jaunsár than during the former year, there being a difference of 2,609 trees under this head.

In the Dún Division no trees were classed under selection fellings, whereas during the former year there were 1,737 trees sold and classed under this head. The main increase under thinnings took place in the Dún Division, due to the more extended operations under the Working Plan.

In the Sahúranpur Division there was an increase of 10,016 trees, under clearances, mainly accounted for by the clearing of the fire line between Dholkand and Andheri.

The trees felled are distributed as follows as regards species—

Species.	Selection fellings.		Thinnings.		Clearance.	
	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.
Sál	29	...	7,810	50,639	33	5,307
Sain	651	3	83	2,984	4	...
Sissu	65	18	...	1	...	...
Deodar	57	806	...	...	...	...
Fir and Pine	3	...	...	...	...	...
Oak	61	65	...	...	...	...
Chír (Pinus longifolia) ...	4,885	2,051	...	...	...	...
Miscellaneous	993	...	30,144	51,471	101	4,727
Total ...	6,744	2,943	38,037	1,05,095	138	10,034

Under selection fellings the main decrease was under chír trees sold in the Jaunsár Division, it having been deemed desirable to limit the sales, as the market was somewhat glutted by the sales of the former year. The prices obtained were, on an average, only about Re. 1 less per tree than during the former year. The increase under Deodar sold is due to the sale of 800 trees from the Gokul Forest, Tehri Garhwál, in accordance with the provisions of the Working Plan. The deodar trees were sold by auction at Rs. 16-12 per tree, which may be considered a fair price, considering that the same class of trees can be purchased in the neighbouring hill states of Taroche and Jubal for Rs. 10 or Rs. 12 per tree.

80. *Yield in produce.*—The amount of produce removed by purchasers is exhibited as follows and shows an increase of Rs. 45,203 over the former year :—

Produce removed.	1887-88.		1888-89.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber, cubic feet	5,76,646	43,499	4,06,867	75,215
Poles and saplings ,, ...	14,938	3,901	20,721	4,596
Firewood, ,, ...	3,59,117	7,615	5,43,182	13,785
Charcoal ,, ...	880	110	1,342	189
Bamboos, scores ,, ...	1,02,130	10,154	93,838	12,337
Grazing dues Rs.	...	23,053	...	23,955
Minor produce ,, ...	...	13,900	...	17,408
Total ...	...	1,02,232	...	1,47,435

There was an increase of Rs. 35,411 under timber sales, which principally occurred in the Dún Division, where the timber sales realized Rs. 56,564 against Rs. 27,189.

In Jaunsár also there was an increase of Rs. 5,659, due to the sale of 800 deodar trees. Under firewood there was an increase of Rs. 6,170, due to more extensive sales in the Saháranpur and Dún Divisions. There is an increase of Rs. 2,183 under bamboo sales, due to the rates having been raised in the Dún, and to more extensive export from the Saháranpur forests.

Under minor produce there was an increase of Rs. 3,508, which occurred in the Saháranpur Division and was due to better prices obtained for the lease of gums, &c.

The auction sales for minor produce, which were held at Dehra in August, may be compared with the previous year, thus :—

Division.	1887-88.	1888-89.
Dehra Dún	5,392	4,702
Saháranpur	14,145	20,877

This shows a very satisfactory result in the Saháranpur Division, and the extension of fire conservancy does not seem to have affected these sales on the last occasion, as it is supposed to have done during the former year.

4. Free grant of Forest produce.

81. *Trees granted.*—The following statement shows the number of trees given away during the year :—

Year.	Selection fellings.		Thinnings.		Clearances.		Total.	
	Number.	Cubic feet.	Number	Cubic feet.	Number.	Cubic feet.	Number	Cubic feet.
Average of 4 preceding years,	5,131	4,82,643	...	...	...	...	5,131	4,82,643
1887-88	1,045	1,33,289	...	...	102	62	2,047	1,33,351
1888-89	1,647	95,104	76	152	392	4,421	2,115	99,677

The species granted are as follows compared with those of the former year :—

Species.	Selection fellings.		Thinnings.		Clearances.	
	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.
Sál	67	179	...	...	102	...
Sain	...	35	...	...	...	...
Deodar	215	96	...	...	...	30
Chír (P. Longifolia)	496	439	...	...	...	...
Fir and pine	812	536	...	...	...	1
Oak	201	180	...	...	...	...
Other trees	154	182	...	76	...	361
Total ...	1,945	1,647	...	76	102	392

The decrease under deodar and pine is due to the fact that the Government order regarding the enforced use of the saw came into action on the 1st April, 1888, and many khats did not therefore apply for their trees, whereas during the former year the villagers removed nearly all the trees they were entitled to. The order was, however, resinded in September, to the great satisfaction of the more backward khats on the Jumna watershed, but not of those on the Tons side, who never think of using the axe now. Some of these khats, notably Bamtar, now cut up beams with the saw from 30 to 40 feet long, and not a scrap of the timber is wasted.

Every encouragement is given by the granting of extra trees and the purchase of saws to these khats who have adopted the use of the saw in preference to the wasteful method of cutting up their timber by means of the axe.

The high average of the four preceding years is due to the very large number of kail trees, formerly granted in the Bashahir portion of the Jaunsár Division, which has now been given up to the Panjáb.

82. *Produce removed.*—The following statement compares the produce removed by grantees with that of the former year :—

Description.	1887-88.		1888-89.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber, cubic feet	144,889	22,824	97,982	7,665
Poles and saplings ,, ...	62	6	694	235
Firewood ,, ...	1,969,040	61,525	1,668,848	50,530
Bamboos, scores	50	2	...	...
Grazing at half rates	...	1,519	...	1,518
Free grazing and fodder grass	...	6,320	...	6,320
Minor produce, Rs.	...	500	...	500
Total ...	...	92,696	...	66,768

The principal difference under timber occurs in the Jaunsár Division, and is due to fewer trees and less fallen timber having been removed by the khats during the year under report for the reasons already stated. In the Jaunsár Division the same data as usual have been used in making these calculations.

Under firewood there is a nominal decrease of nearly three lakhs cubic feet in the Dún, and the Deputy Conservator explains the method he has adopted in arriving at these figures, which appear to be much more reliable than those of last year.

83. *Export of timber from Government and private forest down the rivers Jumna and Ganges.*—The accompanying Appendix K shows the quantity of timber exported during the year as compared with the former year.

The decrease of 51,599 pieces in the export of timber down the Jumna is due to the flood of 24th February, 1889, which swept down below Bogriwála a large quantity of timber, probably amounting to about 50 or 60 thousand pieces, and which could not therefore be counted at Dághpathar.

84. *Jumna river rules.*—A revised draft of the river rules, which in their present form are very faulty, has been prepared, and they are now under the consideration of Government.

85. *Ganges river export works.*—The control of the traffic on the Ganges river, established some years ago by order of Government, enables us to give a fairly accurate account of the timber and other produce exported from the Government and private forests of the Dehra Dún district. The returns do not include the export from the forests of the Ganges Division, nor that from Tehri-Garhwál, which, however, has been closed to export since the death of the Rája.

The accompanying statement contained in Appendix K shows the extent of the trade during 1888-89 :—

This year the timber from the Thano forest has all been taken to Dehra instead of going down the Ganges to Meerut and other places. This accounts for the difference in export of timber between the two years.

CHAPTER V.

Financial Results.

Receipts and Expenditure.

86. The financial results compare as follows with the former years and exhibit a satisfactory decreased expenditure in all the divisions and an increased revenue and surplus :—

Division.	Receipts.			Expenditure.			Surplus.		
	Average of six previous years, *i.e.*, 1881-82 to 1886-87.	1887-88.	1888-89.	Average of six previous years, *i.e.*, 1881-82 to 1886-87.	1887-88.	1888-89.	Average of six previous years, *i.e.*, 1881-82 to 1886-87.	1887-88.	1888-89.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dehra Dún ...	73,062	75,389	96,956	50,242	51,650	51,103	22,820	23,739	45,853
Saháranpur ...	37,604	32,043	44,073	22,294	24,172	22,563	15,310	7,871	21,510
Jaunsár ...	1,73,292	2,48,938	2,48,595	1,57,122	1,78,379	1,71,185	16,170	70,559	77,410
Direction ...	1,666	764	691	40,155	23,391	22,619	−38,489	−22,627	−21,928
Total ...	2,85,624	3,57,134	3,90,315	2,69,813	2,77,592	2,67,470	15,811	79,542	1,22,845

87. *Receipts and expenditure under the three great sub-heads.*—The receipts and expenditure under the three heads—

I.—Departmental timber operations,

II.—Other revenue,

III.—Formation, protection, and improvement of the forests,

were as follows :—

Division, &c.	Departmental timber operations.			Other revenue.			Formation, protection and improvement charges.	Net surplus.
	Receipts.	Charges.	Surplus.	Receipts.	Charges.	Surplus.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dehra Dún, Average of eight previous years ...	4,004	1,964	2,040	62,845	9,897	52,948	33,295	21,693
Dehra Dún, 1887-88 ...	15,388	6,106	9,282	60,001	8,956	51,045	36,588	23,739
Dehra Dún, 1888-89 ...	24,017	15,317	8,700	72,939	11,353	61,586	24,433	45,853
Saháranpur, Average of eight previous years ...	1,206	684	522	34,320	10,394	23,926	10,542	13,906
Saháranpur, 1887-88 ...	1,648	834	814	30,395	9,549	20,846	13,789	7,871
Saháranpur, 1888-89 ...	3,091	3,008	83	40,982	6,328	34,654	13,227	21,510
Jaunsár ... Average of eight previous years ...	1,53,188	1,14,435	38,753	18,663	4,285	14,378	30,971	22,160
Jaunsár ... 1887-88 ...	2,11,243	1,25,844	85,399	37,695	5,330	32,365	47,205	70,559
Jaunsár ... 1888-89 ...	2,19,107	1,24,494	94,613	29,488	5,267	24,221	41,424	77,410
Direction ... Average of eight previous years ...	...	19,846	19,846	1,251	5,894	−4,643	15,014	−39,503
Direction ... 1887-88 ...	...	7,797	−7,797	764	7,797	−7,033	7,797	−22,627
Direction ... 1888-89 ...	...	7,540	−7,540	691	7,539	−6,848	7,540	−21,928
Circle ... Average of eight previous years ...	1,58,398	1,36,929	21,469	1,17,079	30,470	86,609	89,822	18,256
Circle ... 1887-88 ...	2,28,279	1,40,581	87,698	1,28,855	31,632	97,223	1,05,379	79,542
Circle ... 1888-89 ...	2,46,215	1,50,359	95,856	1,44,100	30,487	1,13,613	86,624	1,22,845

88. *Sources of revenue.*—The receipts are derived from the following sources :—

Division.	Timber and other produce removed from the forests by Government agency.	Timber and other produce removed from the forests by consumers and purchasers.	Confiscated, drift and waif wood.	Revenue from forests not managed by Government.	Miscellaneous.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dehra Dún ... Average of six previous years ...	3,807	63,605	5,276	1	373	73,062
Dehra Dún ... 1887-88 ...	15,388	55,218	4,543	...	240	75,389
Dehra Dún ... 1888-89 ...	16,678	72,652	7,339	...	287	96,956
Saháranpur ... Average of six previous years ...	1,609	34,738	758	...	499	37,604
Saháranpur ... 1887-88 ...	1,648	29,997	...	...	398	32,043
Saháranpur ... 1888-89 ...	3,091	40,883	...	...	99	44,073
Jaunsár ... Average of six previous years ...	1,49,422	13,534	128	8,543	1,665	1,73,292
Jaunsár ... 1887-88 ...	2,11,243	20,779	92	14,399	2,425	2,48,938
Jaunsár ... 1888-89 ...	2,19,021	14,575	86	13,795	1,118	2,48,595
Direction ... Average of six previous years ...	...	...	...	...	1,666	1,666
Direction ... 1887-88 ...	...	...	...	...	764	764
Direction ... 1888-89 ...	...	...	...	...	691	691
Total ... Average of six previous years ...	1,54,838	1,11,877	6,162	8,544	4,203	2,85,624
Total ... 1887-88 ...	2,28,279	1,05,994	4,635	14,399	3,827	3,57,134
Total ... 1888-89 ...	2,38,790	1,28,110	7,425	13,795	2,195	3,90,315

In the Dehra Dún Division the increase under departmental timber operations is due to more timber having been delivered to the Canal Department and to higher rates having been obtained for the class of material offered for sale. The increase of Rs. 17,434 under timber, &c., removed by purchasers is due to more timber and fuel having been sold under the provisions of the new working plan.

A larger quantity of drift timber on the Ganges was also sold, and better prices obtained for the material, which resulted in an increase of Rs. 2,796.

In the Saháranpur Division there is an increase of Rs. 1,443 under departmental timber operations, due to the extension of coppice fellings in this division.

Under timber, &c., removed by consumers and purchasers there is a substantial increase of Rs. 10,886, due to higher prices having been obtained at the auction sales; also to greater demand from minor produce removed under the "rawannah" system, and to a better collection of grazing dues through the Collector of Saháranpur.

In the Jaunsár Division there was an increase of Rs. 7,778 under timber removed by Government agency, due to a larger sale of sleepers and to an extra supply of timber to the Executive Engineer, Chakráta, for the building of new barracks.

It may be mentioned that a bill for Rs. 13,606 on account of 8,063 sleepers supplied to the Rajputana and Malwa Railway in accordance with the agreement remained unpaid for want of funds at the close of the year, so that, properly speaking, the increased revenue under this head should have amounted to Rs. 21,384.

The decrease under timber, &c., removed by purchasers is due to fewer chír trees having been sold from the Jaunsár forest, as the market was supposed to be glutted with this class of timber.

Expenditure under A and B.

89. The following tables shows the expenditure :—

A.—*Conservancy and works.*

Division.		Timber and other produce removed from the forests by Government agency.	Timber and other produce removed from the forests by purchasers.	Confiscated, drift and waif wood.	Revenue from forests not managed by Government.	Revenue from leased forests.	Purchase of live stock, stores, tools and plant.	Communications and buildings.	Demarcation and improvement.	Miscellaneous.	Total.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dehra Dún.	Average of six previous years ...	1,927	2,707	2,105	...	2,351	1,874	7,272	8,795	1,891	28,924
	1887-88 ...	6,106	1,455	4,569	...	351	1,082	9.189	6,616	1,067	30,435
	1888-89 ...	9,730	1,877	2,689	...	...	1,042	5,330	7,434	1,071	29,173
Saháran-pur.	Average of six previous years ...	912	4,567	46	...	...	857	1,768	4,827	358	13,329
	1887-88 ...	834	228	...	...	...	1,231	2,447	3,513	260	8,513
	1888-89 ...	1,291	776	...	...	...	1,058	3,302	3,096	263	9,786
Jaunsár.	Average of six previous years ...	1,09,711	...	...	1,770	8,150	519	7,965	4,599	1,680	1,34,400
	1887-88 ...	1,12,027	...	...	2,334	11,150	573	11,223	9,424	1,048	1,47,779
	1888-89 ...	1,12,123	...	3	3,417	11,150	1,053	11,430	6,525	1,373	1,47,074
Direc-tion.	Average of six previous years ...	...	...	...	...	...	2,254	4,437	698	2,484	9,873
	1887-88 ...	...	...	...	...	...	1,209	1,648	...	1,092	3,949
	1888-89 ...	8	...	...	...	...	865	493	...	823	2,189
Total.	Average of six previous years ...	1,12,550	7,274	2,145	1,770	10,501	5,504	21,444	18,919	6,413	1,86,526
	1887-88 ...	1,18,967	1,683	4,569	2,334	11,501	4,095	24,507	19,553	3,467	1,90,676
	1888-89 ...	1,23,152	2,653	2,692	3,417	11,150	4,018	20,555	17,055	3,530	1,88,222

Under departmental timber operations there is a total increase of Rs. 4,185 in the charges, which principally occurred in the Dún Division, due to more fuel having been supplied to the Roorkee Workshops, and to the charges for the delivery of the canal timber being slightly enhanced.

In Jaunsár the charges of the two years were practically the same, whereas in the Saháranpur Division there was an increase of Rs. 456 on account of extended coppice operations.

Under charges connected with the collection of drift timber on the Ganges there was a decrease of Rs. 1,880, due to the expenditure on the timber sold having been defrayed during the previous year.

In the Jaunsár Division there was an increase of Rs. 1,083 under river charges, mainly in connection with the collection of merchants' sleepers during the rains and of the Government sleepers which went adrift in the great flood of 24th February, 1889.

Under communications and buildings there was a total decrease of Rs. 3,952, which mainly occurred in the Dún Division, where a saving of Rs. 3,859 was effected.

In the Saháranpur Division there was a slight increase, whereas in the Jaunsár Division the charges were practically the same during both years ; but as all necessary buildings have now been completed, there ought to be a marked decrease in future years under this head.

The charges under demarcation and improvement were decreased by Rs. 2,498, which was mainly due to the cessation of the working plans operations in the Jaunsár Division.

The total expenditure under A has decreased since last year by Rs. 2,454 :—

B.—Establishments.

Division, &c.		I. Salaries.	II. Travelling allowances.	III. Contingencies.	Total.	Remarks.
		Rs.	Rs.	Rs.	Rs.	
Dehra Dún ...	Average of 6 previous years ...	17,952	2,145	1,221	21,318	
	1887-88	17,249	2,610	1,356	21,215	
	1888-89	18,153	2,252	1,525	21,930	
Saháranpur ...	Average of 6 previous years ...	7,018	1,106	841	8,965	
	1887-88	13,613	1,896	650	15,659	
	1888-89	10,657	1,404	716	12,777	
Jaunsár ...	Average of 6 previous years ...	18,932	2,719	1,071	22,722	
	1887-88	25,911	3,656	1,034	30,601	
	1888-89	21,199	1,815	1,097	24,111	
Direction ...	Average of 6 previous years ...	25,055	3,012	2,215	30,282	
	1887-88	15,954	1,530	1,957	19,441	
	1888-89	17,113	1,336	1,981	20,430	
Total ...	Average of 6 previous years ...	68,957	8,982	5,348	83,287	
	1887-88	72,727	9,192	4,997	86,916	
	1888-89	67,122	6,807	5,319	79,248	

There is a decrease under salaries of Rs. 5,605, mainly due to the departure on leave of Mr. N. Hearle, also to the Saháranpur Division having been held for a considerable part of the year by an Assistant Conservator instead of a Deputy Conservator.

Under travelling allowances there is a decrease of Rs. 2,385, principally due to Mr. Hearle's departure, also to less travelling allowance having been drawn by the Conservator than during the former year.

90. *The surplus of the circle.*—The net surplus of the circle is Rs. 1,22,845 as against Rs. 79,472 of the previous year, and this would have amounted to Rs. 1,36,451 had the bill due from the railway for sleepers supplied been realized. If this been the case, the surplus would have been the best as yet obtained since the circle was formed, and as the figures now stand the result is the second best on record, being less than that of 1885-86 by Rs. 6,962 only.

Outstandings and liabilities.

91. The outstandings and liabilities on account of contractors and disbursers are exhibited in form No. 61.

At the commencement of the year the outstandings were Rs. 28,632 and at the close of the year Rs. 27,303.

These are distributed as follows :—

	Outstandings.	Liabilities.
	Rs.	Rs.
Direction	37	...
Dehra Dún	2,973	1
Saháranpur	336	...
Jaunsár	23,957	...
Total ...	27,303	1

The outstandings in the Jaunsár Division have been decreased by Rs. 1,990 and are still high.

As explained in last year's annual report, this amount really represents the working capital of the division, and is nearly all covered by materials supplied or work done.

OUTSTANDINGS OF REVENUE.

92. The outstandings of revenue were as follows at the close of the year :—

	Rs.
Dehra Dún	16,397
Saháranpur	3,052
Jaunsár	32,022
Total ...	52,371

as compared with Rs. 23,463 at the close of last year.

In the Dún Division the outstandings are mainly due to sales of standing trees to purchasers, the third instalment for which did not fall due within the year.

In the Jaunsár Division, as already explained, there is an outstanding of Rs. 13,606 from the Rajputana and Malwa Railway, which the Manager had no funds to defray till April, also to balances due from contractors on account of deodar and chír trees sold.

The outstanding in the Saháranpur Division is nearly all due to the non-collection of grazing dues from the villagers by the Collector.

CHAPTER VI.

General Remarks.

93. *Claims of the Mahárája of Sirmúr.*—The claims of the Mahárája of Sirmúr, with regard to a share in the boom and Jumna river dues were finally decided during the year and the account settled up to the end of June, 1887. The result was that a sum amounting to Rs. 3,524 was declared to be due to the Mahárája on account of ¼ part of the net profit; but as the orders arrived after the close of the financial year, the payment was not made during the year under report. No orders have yet been received defining the rights of Government and the Mahárája or the exact position of this department on the Jumna river, and it is to be hoped that these orders will be no longer delayed.

94. *Supply of seed.*—From the Dún Division about 17 maunds of seed of various kinds were supplied to the Assistant Conservator of Ajmere, the Forest School, the Executive Engineer, Jeypur State, and others. From the Jaunsár Division about 2½ maunds of deodar and pine seeds were supplied to the Central Circle and the Superintendent, Botanical Gardens, Saháranpur.

95. *Herbarium collections.*—The Divisional Herbarium of the Dún and Jaunsár Divisions have been arranged according to the natural orders by Messrs. Smythies and Hearle, and the collections now contain specimens of nearly all the trees and shrubs of the three divisions of the circle.

96. *Tour of the Conservators.*—During the hot weather of 1888, Mr. Fisher remained for two months in the Jaunsár, but owing to family sickness was unable to visit the more distant works of the division.

During the cold weather of 1889 Lieutenant-Colonel Bailey inspected most parts of the Dún and Saháranpur Divisions, as well as the lower forests of the Jaunsár Division.

97. *Services of officers.*—Not having been in charge of the Circle during the year under report, undersigned feels that he is not in a position to make any extensive remarks under this head; but it must be admitted that the foregoing record represents a large amount of work done and a satisfactory financial result, mainly due to the efforts of the divisional officers of this circle.

E. McA. MOIR,

Offg. Consr. of Forests, School Circle, N.-W. P. and Oudh.

Dated 31st July, 1889.

ANNUAL STATEMENTS

AND

APPENDICES.

Form No. 49.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

AREA OF RESERVED FORESTS, PROTECTED FORESTS, UNCLASSED STATE FORESTS, AND WASTE LANDS, 1888-89.

Division or Range.	Civil District or Territory.	Name of Forest.	Area on 1st April, 1888.		Added during the year.	Excluded or transferred to other heads.	Area on 1st March, 1889.		Number and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
		I.—Reserved Forest.								
Dehra Dún — Jumna	Dehra Dún	Ambári	4,203	7	...	...	4,203	7		
		Chandpur	2,251	3	...	...	2,251	3		
		Jumna	9,130	14	...	...	9,130	14		
		Timli	19,704	31	...	...	19,704	31		
Malhán	Ditto	Sherpur	13,922	22	...	...	13,922	22		
		Chandrabani	7,289	11	...	...	7,289	11		
		Dholkot	4,826	8	...	16	4,810	8		
Ramgarh	Ditto	Ramgarh	10,482	17	...	...	10,482	17		
		Bulawála	14,965	23	...	...	14,965	23		
		Nágsidh	16,517	26	538	...	17,055	27		
Lachiwála	Ditto	Malkot	5,641	9	...	...	5,641	9		
		Tlráno	6,576	10	...	...	6,576	10		
		Tirsál	18,066	28	6	...	18,072	28		
Ganges	Ditto	Tapoban	495	1	...	6	489	1		
		Birbhaddar								
		Kánsrao	20,940	33	...	538	20,402	32		
		Motichúr	22,073	34	...	...	22,073	34		
		Total, Dehra Dún Division.	177,080	277	544	560	177,064	277		
Saháranpur — Western	Saháranpur	...	81,862	128	...	...	81,862	128		
Central	Ditto	...	74,961	117	...	...	74,961	117		
Eastern	Ditto	...	31,743	50	...	...	31,743	50		
		Total, Saháranpur Division.	188,566	295	...	...	188,566	295		
Jaunsár — Deolsa	Dehra Dún	Kálsi	4,568	7	...	...	4,568	7		
		Stripes on Jumna and Tons.	422	1	...	...	422	1		
		Singori, Kua, Korwa, Kothar, Bandla, and Raura.	279	½	508*	...	787	1		* Bandla, Kothar and Raura Forests omitted by oversight in previous year's statements.
		Amlawa	285	...	...	...	285	...		
		Lokandi	6,339	10	...	...	6,339	10		
		Deoban	6,580	10	...	...	6,580	10		
		Ekra	5,313	8	...	...	5,313	8		
		Karamba	11,842	19	...	...	11,842	19		
		Konain	4,654	7	...	...	4,654	7		

Jaunsár.	Báwar	Ditto ...	Riknár	6,450	10	...	...	6,450	10
			Dháragád	13,540	21	...	...	13,540	21
			Dharmigád ...	10,013	16	...	...	10,013	16
	Deogarh... ...	Ditto ...	Bástil	3,085	5	...	...	3,085	5
			Deogarh	11,272	18	...	...	11,272	18
			Khunigád	11,974	19	...	...	11,974	19
			Total, Jaunsár Division,	96,616	151½	508	...	97,124	152
			GRAND TOTAL OF RESERVED FORESTS.	462,262	723½	1,052	560	462,754	724
			II.—Leased Forests.						
	Deogarh ...	Panjáb Hill State.	Raiengarh ...	5,002	8	...	...	5,002	8
			Dádi including Ori ...	1,630	2	...	...	1,630	2
	Deota	Tehri Garhwál,	Deota	4,937	8	...	...	4,937	8
			Bámsu	2,323	4	...	...	2,323	4
			Surás	1,014	2	...	...	1,014	2
			Dátmir	2,560	4	...	...	2,560	4
	Kotigád ...	Tehri Garhwál,	Naintwár	3,000	5	...	...	3,000	5
			Sáhlra	22,000	34	...	...	22,000	34
			Noranu						
			Chénsil						
			Lambatách ...	2,883	4	...	...	2,883	4
			Kotigád	3,968	6	...	...	3,968	6
			Total, Leased Forests...	49,317	77	...	...	49 317	77
			III.—Protested Forests. *Nil.*						
			IV.—Unclassed State Forests.						
			Chakráta Cantonment Forests, comprising—						
		Dehra Dún ...	Lurli	290	1	...	...	290	1
			Sutoli	188	...	...	...	188	...
			Forest garden ...	48	...	...	...	48	...
			Total, Unclassed Forests,	526	1	...	...	526	1
			V.—Waste Lands.						
	Dehra Dún	Dehra Dún ...	...	8,206	13	...	...	8,206	13
			Total, Waste Lands...	8,206	13	...	...	8,206	13
			GRAND TOTAL OF FORESTS LANDS.	520,311	814½	1,052	560	520,803	815

Abstract of Charges during the year.

	Acres.
Area at commencement of year	520,311
Added.—By omission of reserved forests from previous returns of the Jaunsár Division...	508
	520,819
Excluded—By correction of areas of reserved forests in the Dehra Dún Division	16
Area at close of year	520,803

Form No. 50.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

PROSECUTIONS FOR BREACHES OF FOREST RULES DURING 1888-89.

Forest Division and Civil District.	Cases pending from 1887-88.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
		Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
I.—Prosecutions in the Courts of Law.														
Dehra Dún District.														
Dehra Dún Division	...	...	...	...	2	2	2	1	1	1	2	2	3	
Saháranpur ditto	...	...	...	...	1	1	1	...	...	1	1	1	1	
Jaunsár ditto	1	...	6	...	...	6	7	6	11	1	1	7	12	
Total for the Circle ...	1	...	6	...	3	9	10	7	12	3	4	10	16	
II.—Cases compounded under section 67 of the Forest Act.														
Dehra Dún Division	...	5	10	3	5	23	23	23	63	...	...	23	63	
Saháranpur ditto	...	1	17	13	...	31	31	31	91	...	...	31	91	
Jaunsár ditto	...	6	9	4	2	21	21	21	44	...	...	21	44	
Total for the Circle ..	...	12	36	20	7	75	75	75	198	...	...	75	198	

DATED DEHRA DÚN :
The June, 1889.

E. McA. MOIR,
Offg. Conservator of Forests, School Circle, N.-W. P. and Oudh.

Form No. 51.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

AREA OF FOREST TRACTS PROTECTED FROM FIRE DURING THE DRY SEASON OF 1889, TO ACCOMPANY REPORT FOR 1888-89.

Division.	Forest tracts.	Year in which protection commenced.	Area actually protected up to 15th June, 1889.	During dry season of 1889.			Cost during the season.	Remarks.
				Area attempted to be protected.	Failures.	Actually protected.		
			Acres.	Acres.	Acres.	Acres.	Rs.	
	Jumna Range.							
Dehra Dún ...	Ambári	1887	4,198	4,203	25	4,178	121	
	Chandpur	1887	2,251	2,251	...	2,251	131	
	Jumna	1886	5,747	8,305	...	8,305	119	
	Tiuli	1884	19,351	19,704	...	19,704	321	
	Malhan Range.							
	Dholkot	1884	4,826	4,826	...	4,826	119	
	Sherpur	1884	13,922	13,922	2,729	11,193	293	
	Chandrabani	1878	7,289	7,289	...	7,289	131	
	Ramgarh Range.							
	Ramgarh	1878	10,232	10,232	...	10,232	85	
	Bulawála	1872	14,525	14,525	...	14,525	185	
	Lachiwala Range.							
	Nágsidh	1883	11,568	11,568	...	11,568	152	
	Thano	1877	6,576	6,576	132½	6,443½	169	
	Malkot	1888	7,056	7,106	218	6,888	50	
	Ganges Range.							
	Kansrau	1878-81	13,526	14,357	...	14,357	345	
	Motichur	1883	18,585	18,763	3,070	15,693	420	
	Tirsál	1887	13,474	13,836	86	13,750	449	
	Birbhadra	1888	50	50	...	50	5	
	Total ...	...	153,176	157,513	6,260½	151,252½	*3,095	*Not including Rs. 110 granted as rewards to Establishment.

Form No. 51.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

AREA OF FOREST TRACTS PROTECTED FROM FIRE DURING THE DRY SEASON OF 1888, TO ACCOMPANY REPORT FOR 1887-88.

Division.	Forest tracts.	Year in which protection commenced.	Area actually protected up to 15th June, 1889.	During dry season of 1889.			Cost during the season.	Remarks.
				Area attempted to be protected.	Failures.	Actually protected.		
			Acres.	Acres.	Acres.	Acres.	Rs.	
	Western Range.							
SAHÁRANPUR ...	Khára ...	1879	6,574	9,612	...	9,612	145	
	Búdshahibágh ...	1885	6,448	7,066	...	7,066	109	
	Chapri ...	1885	1,127	2,765	...	2,765	62	
	Khaironwála ...	1885	2,845	2,970	1,594	1,376	125	
	Barkala ...	1885	5,133	5,133	2,630	2,503	111	
	Kasumri ...	1885	2,579	2,579	...	2,579	77	
	Sahánsra ...	1885	6,048	6,048	1,790	4,358	140	
	Kotri ...	1885	2,669	2,669	2,650	19	99	
	Kaluwála ...	1885	5,116	5,116	4,430	686	98	
	Sháhjahánpur ...	1887	7,628	9,572	4,155	5,417	152	
	Khajnawár ...	1887	7,062	8,392	180	8,212	71	
	Budhaban ...	1887	3,771	3,771	...	3,771	45	
	Mohand ...	1884	6,043	6,131	14	6,117	152	
	Central Range.							
	Súkh ...	1884	5,111	5,111	136	4,975	39	
	Chikna ...	1882	7,782	7,782	...	7,782	11	
	Gáj ...	1882	3,578	3,578	...	3,578	5	
	Binj ...	1882	5,719	5,719	...	5,719	7	
	Dholkhand ...	1880	3,916	3,916	...	3,916	16	
	Maluwála ...	1880	2,122	2,122	...	2,122	6	
	Bám ...	1880	3,013	3,013	763	2,250	32	
	Betban ...	1882	6,518	6,781	1,657	5,124	40	
	Gholna ...	1886	3,703	3,746	...	3,746	30	
	Lalwálá ...	1884	499	499	...	499	43	
	Baniawála ...	1883	500	500	...	500	40	
	Lakarkot ...	1879	3,646	3,646	...	3,646	88	
	Ganjarban ...	1879	891	2,833	...	2,833	88	
	Rasulpur ...	1879	37	1,987	...	1,987	44	
	Sendhli ...	1883	2,448	2,560	...	2,560	82	
	Tira ...	1884	1,282	1,791	...	1,791	51	
	Eastern Range.							
	Harnaul ...	1886	2,035	2,035	...	2,035	26	
	Chírák ...	1886	3,860	3,860	...	3,860	25	
	Rauli ...	1879	3,038	3,038	741	2,297	36	
	Ráni ...	1879	4,885	4,885	2,726	1,159	46	
	Maiapur ...	1886	1,361	1,361	29	1,332	64	
	Pathri ...	1880	665	672	352	320	90	* Not including Rs. 70 cost of construction of three miles of watershed fire line, and Rs 40 for rewards.
	Total ...	...	129,652	143,259	24,847	118,412	*2,294	

					Deoban Range.						
	Kálsi										14
	Bairát				1872	2,500	3,008	5	3,003		
	Amláwá										40
	Cantonment blocks and Forest Garden				1880	561	561	1	560		42
	Lokandi				1869	5,679	5,722	10	5,712		45
	Deoban				1872	5,800	5,800	10	5,790		50
	Ekra				1872	2,670	2,670	...	2,670	...	
	Konain				1872	3,779	3,780	4	3,776	...	
	Karamba				1872	3,621	3,621	...	3,621		13
					Bawar Range.						
	Riknár				1872	4,490	4,600	...	4,600		40
	Dhárágád				1872	4,345	6,055	...	6,055		50
	Dharnigád				1872	1,670	2,638	...	2,638		28
	Bástil				1875	1,669	1,669	...	1,669		25
	Kunjáwar				1884	100	100	...	100		4
					Deota Range.						
	Khúnígád										
	Molta				1879-84	3,877	4,157	...	4,157		237
JAUNSAR ...	Chatra										
	Hanol										
	Hanol (leased forests)				...	...	...	...	...	...	
	Deota				1879-84	4,937	4,937	...	4,937		
	Bámsu				...	2,323	2,323	...	2,323		119
	Surás				...	1,014	1,014	...	1,014		
	Dátmir				1872	2,560	2,560	...	2,560		12
	Naintwár				1885	3,000	3,000	...	3,000		63
	Sáhlra				1885	7,500	7,500	...	7,500		
	Noranu				1885	1,500	1,500	...	1,500		22
					Deogarh Range.						
	Deogarh				1872-75	4,742	5,000	502	4,588		408
					1886-87						
	Raingarh				1880	5,002	5,002	...	5,002		16
	Dádi				1880	1,630	1,730	...	1,730		29
					Kotigad Range.						
	Chánsil				1885	13,000	13,000	...	13,000		31
	Kotigád				1879	3,968	3,968	...	3,968		21
	Lambatách				1879	2,858	2,883	...	2,883		109
				Total ...	...	94,795	98,888	532	98,356		1,118
				GRAND TOTAL OF PROTECTED FORESTS ...	...	377,623	399,660	31,639½	368,020½		6,407

Form No. 52.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

AREA OF PLANTATIONS, 1888-89.

Division.	Name of Plantation.	Area in Acres.				Receipts.	Charges.	Total charges up to 31st March, 1889.	Remarks.
		On 1st April, 1888.	Added during the year.	Excluded during the year.	Area on 31st March, 1889.	Of the year.			
		Regular Plantations.							
		Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	Rs.	
Sahâranpur	Ferozpur (chiefly sissu)	80½	...	...	80½	...	8	1,097	
	Total ...	80½	...	...	80½	...	8	1,097	
		Cultural Operations.							
Dehra Dún	Phandowálá (tun, Broussonetia)	5¼	...	...	5¼	...	179	6,197	
	Ramgarh (sál, bamboos, &c.)	30	...	...	30	...	207		
	Johra (bamboo and Parduni nursery)	86	...	...	86	...	130		
	Jamankhata	...	...	...	...	...	9		
	Sherpur	...	½	...	½	...	6		
	Total ...	121¼	½	...	122¼	...	531	6,197	
Sahâranpur	Pathrí (fire line)	2	1½	...	3½	...	22	48	
	Ranipur or Kalushahúl (bamboos)	13½	...	...	13½	...	54	1,313	
	Ganjárban (sál)	11¼	...	...	11¼	...	...	842	
	Bám (sál)	8¼	...	...	8¼	...	7	721	
	Sendhli (sál)	8	...	...	8	...	6	632	
	Tira (miscellaneous)	1	...	...	1	...	8	655	
	Gáj (sissu)	...	...	...	...	...	38	159	
	Dhaula (sál)	2	1	...	3	...	11	83	
	Lakarkot compartment 4 (miscellaneous)	...	...	...	...	...	10	10	
	Total ...	46	2½	...	48½	...	156	4,463	

Jaunsár	Korwa (rai, kail and ban)	27	6	...	33	...	75	306		
	Mohna (rai, deodár, kail and kharsu)	181	2	...	183	...	55	3,709		
	Matkángra (moth)	61	3	...	64	...	45	853		
	Hajáwa (rai sowings)	3	...	...	3	...	...	15		
	Thoná (rai kail and kharsu)	4	...	...	4	...	...	733		
	Kanjátra (rai, kail and morinda)	22	...	...	22	...	...	536		
	Ditto (deodár and kail)	9	...	...	9	...	...			
	Kanasár ditto	139	...	...	139	...	...	1,656		
	Bodyár (chiefly deodár)	395	10	...	405	...	220	5,075		
	Konain ditto	122	...	...	122	...	...	2,465		
	Kathián (deodár)	229	2	...	231	...	20	3,115		
	Koti Bawár ditto	2	...	2	...	...	...	...		
	Mundali ditto	...	5	...	5	...	93	133		
	Pártil ditto	48	...	...	48	...	12	1,001		
	Jaurási ditto	10	5	...	15	...	55	280		
	Temple ditto	15	9	...	24	...	40	140		
	Dátmir (boxwood)	2	...	2	*Nil*	...	...	...		
	Goria (deodár)	10	...	...	10	...	...	104		
	Dampti (deodár and kail)	100	...	...	100	...	9	983		
	Chakora (deodár)	34	...	...	34	...	10	331		
	Gurásna ditto	2	...	...	2	...	60	80		
	Morách ditto	13	3	...	16	...	141	439		
	Raiengarh and Chíchpur (deodár)	15	2	...	17	...	121	475		
	Lurli Cantonment (deodár)	75	...	...	75	...	88	1,500		
	Siutoli (deodár)	22	...	...	22	...	4	496		
	Total ...	1,540	47	4	1,583	...	1,048	24,425		
	TOTAL OF CULTURAL OPERATIONS FOR THE CIRCLE ...	1,707¾	50	4	1,753¾	...	1,735	35,085		

ABSTRACT.

	Acres.	Acres.
Total plantation of all classes on 1st April, 1888	...	1,788¼
Work done during the year	50	
Struck off as failures	4	
Net addition	...	46
Total of all classes on 1st April, 1889	...	1,834¼
Total	...	...

E. McA. MOIR,

Offg. Conservator of Forests, School Circle, N.-W. P. and Oudh.

Form No. 52A.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

AREA OF PLANTATIONS, 1888-89,

Division.	Name of Plantation.	Area in acres. On 1st April, 1888.	Added during the year.	Excluded during the year.	Area on 31st March, 1889.	Receipts. Of the year.	Charges. Of the year.	Total charges up to 31st March, 1889.	Remarks.
Dehrá Dún.				Climber cutting.					
Rámgarh Range ...	Bulawála	2,880	...	...	2,880	...	...	253	
	Ramgarh	6,332	...	...	6,332	...	...	409	
Lachiwála „	Thano	5,912	...	...	5,912	...	...	441	
	Dudhli	...	1,545	...	1,545	...	125	125	
Ganges „	Bahera	2,570	1,523	...	4,093	...	63	232	
	Tirsál	1,340	...	...	1,340	...	...	190	
	Sainkot	...	374	...	374	...	86	86	
Malhán „	Chandrabani	8,008	...	...	8,008	...	...	707	
	Dholkot	...	75	...	75	...	3	3	
Jumna „	Timli	1,044	1,345	...	2,389	...	81	102	
	Rampur Mandi	...	30	...	30	...	43	43	
	Kulhál	...	320	...	320	...	28	28	
	Aduwála	...	1,760	...	1,760	...	211	211	
	Total ...	28,086	6,972	...	35,058	...	640	2,830	
Sahárunpur.									
Central Range ...	Lálwála Compartment I.	...	70	...	70	...	23	36	
	Lakarkot, Ditto V.	...	600	...	600	...	13		
	Ganjarban	1,600	...	...	1,600	...	...	64	
	Rasulpur								
	Total ...	1,600	670	...	2,270	...	36	100	
Jaunsár.									
Deolan Range ...	Haripur Block, Kálsi Forest...	...	640	...	640	...	57	57	
	Total for the Circle ...	29,686	82,82	...	37,968	...	733	2,987	

Dehra Dún.										
				Cutting back of inferior and injured Sal.						
Ramgarh Range ...	Bulawála			1,707	...	...	1,707	...	...	611
Malhán „	Ramgarh (Assarori and Muhammadpur)...			1,548	595	...	2,143	...	699	1,702
Lachiwála „	Chandrabani (Láldháng)			708	715	...	1,423	...	343	914
Ganges „	Nágsidh (Nawada)			316	140	...	456	...	46	399
	Tirsál (Barkot)			366	...	...	366	...	...	298
		Total	...	4,645	1,450	...	6,095	...	1,088	3,924
Dehra Dún.				**Girdling of inferior species.**						
Jumna Range					1,200	...	1,200	...	265	265
Malhán „					760	...	760	...	470	470
Ramgarh „	... ...		...	...	500	...	500	...	370	370
Lachiwála „					700	...	700	...	189	189
Ganges „					1,000	...	1,000	...	161	161
		Total	...	...	4,160	...	4,160	...	1,455	1,455
Jaunsár.				**Girdling inferior species to encourage Deodar reproduction (before fellings.)**						
Kotigád Range... ...	Banárpani		...	140	...	...	140			
	Chakora		...	130	...	...	130			
	Pártil		...	200	...	...	200	...	...	62
	Temple		...	95	...	...	95			
Deota „	Kanga		...	50	...	...	50			
	Patangni		...	70	...	...	70			
	Bámsu		...	...	368	...	368	...	401	301
	Dakuri		...	...	132	...	132			
Bawár „	Tutwa Block		...	...	140	...	285	...	103	103
	Mundali Forest		...	...	145	...				
		Total	...	685	785	...	1,470	...	504	566
Jaunsár.				**Thinning and girdling inferior species above young deodar growth (after fellings.)**						
Báwár Range	Kathián		...	280	129	...	409	...	50	50
	Thanwár		...	510	...	...	510	...	...	
Kotigád „	Chakora		...	227	30	...	257	...	45	325
	Lohásu		...	275	28	...	303	...	54	
	Gerasna		...	165	130	...	295	...	...	
Deota „	Pártil		...	8	350	...	358	...	236	238
	Temple		...	30	...	...	30	...	...	8
Deogarh „	Raiengarh		...	12	...	...	12	...	...	5
Deoban „	Kotikanasár		...	...	24	...	24	...	28	28
	Bodyár		...	...	12	...	12	...	...	...
		Total	...	1,507	703	...	2,210	...	413	654
		TOTAL FOR THE CIRCLE	...	6,837	7,098	...	13,935	...	3,460	6,599

The areas and charges for previous years cannot now be given.

140 Acres were done, 1885 to 1887, but omitted last year by mistake. Former expenditure at Mundáli not known.

Former expenditure at Kathián not known.

Cost will be charged next year.

DEHRA DÚN:
The June, 1889.

E. McA. MOIR,
Offg. Conservator of Forests, School Circle, N.-W. P. and Oudh.

Form No. 53.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

TREES FELLED OR GIRDLED BY GOVERNMENT AGENCY DURING THE YEAR 1888-89.

Division.	Trees felled or girdled.		Remarks.
	Description.	Number.	
Dehra Dún	Sál	968	
	Sissu	23	
	Tún	5	
	Khair	20	
	Miscellaneous	624	
	Total, Dehra Dún Division ...	1,640	
Saháranpur	Sissu	14	
	Total, Saháranpur Division ...	14	
Jaunsár	Deodár	2,787	
	Chír	345	
	Rai and Morinda	436	
	Oak	1,045	
	Kakar	8	
	Walnut	4	
	Kail	3	
	Miscellaneous	619	
	Total, Jaunsár Division ...	5,247	
	Abstract for the Circle.		
	Sál	968	
	Sissu	37	
	Tún	5	
	Deodár	2,787	
	Fir and Pine	784	
	Oak	1,045	
	Miscellaneous	1,275	
	Total ...	6,901	

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

OUTTURN OF TIMBER AND FIREWOOD,* DURING THE YEAR 1888-89.

Division.	Description of materials.	Outturn in cubic feet.								Remarks.
		Selection fellings.	Clearances.	Thinnings.	Total.	Removed by— Government Agency.	Purchasers.	Free grants.	Right holders.	
	I.—Reserved Forests.									
Dehra Dún.	Timber of sorts ... ... c.ft.	3,856	8	204,012	207,876	34,387	172,520	969	...	
	Ditto (drift) ... ... „	...	7,374	...	7,374	3,666	3,708	...	...	
	Total ... „	3,856	7,382	204,012	215,250	38,053	176,228	969	...	
	Firewood ... ... c.ft.	...	504,898	137,200	642,098	137,200	298,690	...	206,208	
	Ditto (drift) ... ... „	...	126,894	...	126,894	42,874	84,020	...	...	
	Total, firewood ... „	...	631,792	137,200	768,992	180,074	382,710	...	206,208	
Saharanpur.	Sál timber ... ... c.ft.	...	...	45	45	45	...	...	...	
	Ditto poles ... ... „	...	...	1,894	1,894	1,421	473	...	...	
	Ditto saplings ... ... „	...	...	341	341	341	...	...	...	
	Sissu timber ... ... „	66	...	...	66	30	36	...	...	
	Miscellaneos poles ... ... „	...	...	1,391	1,391	...	1,239	152	...	
	Ditto saplings ... ... „	...	...	164	164	...	164	...	...	
	Leased fallen dry poles .. .. „	...	...	267	267	...	267	...	...	
	Totsl, timber ... „	66	...	4,102	4,168	1,837	2,179	152	...	
	Firewood ... ... c.ft.	...	...	61,880	61,880	(a)7,000	54,880	...	...	(a) Not yet sold; remaining in the forests.
	Ditto (leased)	...	20,000	(b) 82,950	102,950	82,950	20,000	...	...	(b) Includes 25,025 c.ft. of dry fallen fuel removed under leases from Lakarkot fellings.
	Total, firewood ... „	...	20,000	144,830	1,64,830	89,950	74,880	...	...	
Jaunsar.	Deodár trees ... ... c.ft.	90,200	...	...	90,200	...	* *80,600	1,400	8,200	* 2,100 c.ft. of deodár unremoved.
	Chír trees ... ... „	199,200	...	...	199,200	...	† 164,080	800	34,320	† 11,933 c.ft. of fir and pine unremoved.
	Rai and Morinda trees ... ... „	3,920	...	...	3,920	...	...	...	3,920	
	Oak trees ... ... „	7,350	...	...	7,350	...	1,950	...	5,400	
	Kail trees ... ... „	38,960	...	...	38,960	...	...	...	38,960	
	Sál and sain trees ... ... „	190	...	...	190	...	15	...	175	
	Sissu trees ... ... „	100	...	...	100	...	...	...	100	

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

OUTTURN OF TIMBER AND FIREWOOD, DURING THE YEAR 1888-89—*(concluded)*.

Division.	Description of materials.	Outturn in cubic feet.							Remarks.
		Selection fellings.	Clearances.	Thinnings.	Total.	Removed by—			
						Government Agency.	Purchasers.	Free grants.	Right holders.
Jaunsár.	Miscellaneous trees ... ... c. ft.	860	...	...	860	...	...	...	860
	Metre gauge deodár sleeper ... ... „	181,612	...	...	181,612	181,612	...	...	...
	Broad gauge ditto ... ... „	16	...	...	16	16	...	..	...
	Ditto and metre gauged deodár pieces, „	400	...	...	400	400	...	...	...
	Deodár scantlings ... ... „	15,569	3,071	...	18,640	15,522	47	...	3,071
	Ditto ballis ... ... „	410	...	...	410	410	...	...	...
	Broad gauge chír sleepers ... ... „	224	...	...	224	224	...	...	...
	Fir and pine scantlings ... ... „	8,476	49	...	8,525	8,476	...	...	49
	Rai ballis and poles ... ... „	...	...	60	60	60	...	...	...
	Oak scantlings ... ... „	66	...	...	66	66	...	...	...
	Shikanjas and beams ... ... „	8,523	...	...	8,523	8,523	...	...	...
	Miscellaneous pieces ... ... „	698	300	...	998	698	...	...	300
	Drift log ... ... „	7	...	...	7	7	...	...	...
	Walnut ... ... „	87	...	...	87	87	...	...	...
	Tun ... ... „	142	...	...	142	142	...	...	...
	Kakar ... ... „	40	...	...	40	40	...	...	...
	Oak ballis ... ... „	7	...	...	7	7	...	...	...
	Deodár ridge poles ... ... „	5	...	...	5	5	...	..	...
	Siris karis ... ... „	50	...	...	50	50	...	...	...
	Chír logs ... . „	615	...	...	615	615	...	...	...
	7′ Deodár sleepers ... ... „	300	...	...	300	300	...	...	...
	Deodár posts ... ... „	26	...	...	26	26	...	...	...
	Kukat ballis ... ... „	3	40	...	43	3	40	...	...
	Tham, poles, tors, sticks ... ... „	...	869	...	869	...	869	...	...
	Korwas and tool handles ... ... „								
	Haldu pieces ... ... „	840	...	...	840	...	840	...	...
	Drift wood pieces (lease) ... ... „	...	710	...	710	...	710	...	...
	Total, timber ... „	558,896	5,039	60	563,995	217,289	249,151	2,200	95,355
	Oak fuel ... ... „	32,530	6,400	...	38,930	37,760	1,170	...	...
	Mixed fuel ... ... „	6,400	20,660	...	27,060	25,800	1,260	...	...
	Fir fuel ... ... „	79,331	...	...	79,331	79,131	200	...	...
	Firewood loads ... ... „	...	8,348	...	8,348	8,336	12	...	...
	Charcoal ... ... „	6,790	...	...	6,790	6,328	462	...	...
	Ditto Kalsi lease ... ... „	...	880	...	880	...	880	...	...

Firewood removed by villagers from Government Forests.	„	...	1,460,000	...	1,460,000	...	...	...	1,460,000
Torches (loads)	„	...	2,640	...	2,640	...	...	...	2,640
Total, firewood ...	„	125,051	1,498,928	...	1,623,979	157,355	3,984	...	1,462,640
II.—Protected Forest. *Nil.* **III.—Unclassified State Forest.** *Nil.*									
GRAND TOTAL ... Timber ...	c.ft.	562,818	12,421	208,174	783,413	257,179	427,558	3,321	95,355
GRAND TOTAL ... Firewood ...	„	125,051	2,150,720	282,030	2,557,801	427,379	461,574	...	1,668,848
Abstract for Reserved Forests.									
Deodár trees		90,200	...	...	90,200	...	80,600	1,400	8,200
Ditto scantlings, &c.		15,569	3,071	...	18,640	15,522	47	...	3,071
Ditto broad gauge sleeper and pieces ...		416	...	...	416	416	...	...	...
Ditto metre gauge sleepers		181,612	...	...	181,612	181,612	...	...	...
Ditto ballis, poles and posts		441	...	...	441	441	...	...	...
Ditto 7′ sleepers		300	...	...	300	300	...	...	...
Chír trees		199,200	...	...	199,200	...	164,080	800	34,320
Ditto logs		615	...	...	615	615	...	...	...
Ditto broad gauge sleepers		224	...	...	224	224	...	...	...
Fir and pine trees		42,880	...	...	42,880	...	...	...	42,880
Ditto scantlings		8,476	49	...	8,525	8,476	...	...	49
Ditto ballis and poles		...	...	60	60	60	...	...	...
Oak trees		7,350	...	...	7,350	...	1,950	...	5,400
Ditto scantlings and poles		73	...	...	73	73	...	...	...
Miscellaneous timber of sorts		15,462	9,301	208,114	232,877	49,440	180,881	1,121	1,435
Total, timber ...		562,818	12,421	208,174	783,413	257,179	427,558	3,321	95,355
Firewood	c.ft.	118,261	2,150,720	282,030	2,551,011	421,051	461,112	...	1,668,848
Charcoal	c.ft.	6,790	...	...	6,790	6,328	462	...	...

E. McA. MOIR,

Offg. Conservator of Forests, School Circle, N.-W. P. and Oudh.

Form No. 55.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

OUTTURN OF MINOR FOREST PRODUCE DURING THE YEAR 1888-89.

Division.	Description of Produce.	Produce removed or utilised.										Remarks.
		By Government Agency.		By purchasers.		By free grants.		By right-holders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
	1.—Reserved Forests.											
			Rs.		Rs.		Rs.		Rs.		Rs.	
Dehra Dún.	Bamboos	...	...	762,600	5,381	...	...	...	...	762,600	5,381	
	Grazing (animals)	...	...	30,087	7,173	...	...	...	*853	30,087	8,026	* Amount at half rates from privileged villagers.
	Fodder grass (head loads, &c.)... ...	...	...	1,204	155	...	...	...	...	1,204	155	
	Total ...	...	...	31,291	7,328	...	...	...	853	31,291	8,181	
	Leases of limestone	...	...	...	1,642	...	...	...	...	...	1,642	
	„ hides	...	...	...	132	...	...	...	...	...	132	
	„ boulders	...	...	...	105	...	...	...	...	...	105	
	„ minor produce	...	...	...	2,488	...	...	...	...	...	2,488	
	Passes of ditto	...	...	...	1,669	...	...	...	...	...	1,669	
	Total ...	...	...	...	6,036	...	...	...	...	...	6,036	
	Total, Dehra Dún Division ...	...	...	...	18,745	...	...	...	853	...	19,598	
Haridwar.	Bamboos number	...	...	54,290	345	...	...	...	...	54,290	345	
	„ (leased) number	...	...	1,048,800	6,555	...	...	...	...	1,048,800	6,555	
	Total ...	...	...	1,103,090	6,900	...	...	...	...	1,103,090	6,900	
	Grazing (animals)	...	...	30,111	6,285	...	...	...	...	30,111	6,285	
	„ (lease of Shakumbri fair) ...	...	...	4,000	1,000	...	...	..	...	4,000	1,000	
	„ (through Collector)	...	...	41,305	7,956	...	...	...	†665	41,305	8,621	† Represents grazing dues at half rates from privileged villagers.
	Fodder grass	...	...	...	8	...	...	...	...	...	8	
	Total ...	...	...	75,416	15,249	...	...	...	665	75,416	15,914	
	Hides and horns	...	...	...	205	...	...	...	...	...	205	
	Honey and wax	...	...	...	290	...	...	...	...	...	290	
	Stores	...	...	...	311	...	...	...	...	...	311	
	Grass	..	...	...	334	...	...	...	...	..	334	
	Leaves	...	...	...	390	...	...	...	...	...	390	
	Gums	...	...	...	1,775	...	...	...	...	...	1,775	

Sa	Fencing thorns	...	...	...	...	...	59	...	...	...	...	...	59
	Kanda and Saral	...	...	...	...	...	30	...	...	...	...	...	30
	Fruit	...	...	...	...	...	10	...	...	...	...	...	10
	Chattimala	...	...	...	...	...	440	...	...	...	...	...	440
	Creeper	...	...	...	...	...	29	...	...	...	...	...	29
	Miscellaneous	...	...	...	...	...	67	...	...	...	...	...	67
	Lease of other minor produce	...	...	...	...	...	6,955	...	...	...	...	...	6,955
	Total	...	...	...	...	...	10,895	...	...	...	...	...	10,895
	Total, Saháranpur Division	...	...	...	...	...	33,044	...	...	...	665	...	33,709
Jaunsár.	Bingals	...	...	...	...	...	70,110	44	...	...	...	...	70,110	44
	Bamboos	...	...	...	60	1	960	12	...	...	...	...	1,020	13
	Total	...	60	1	71,060	56	...	...	...	...	...	71,120	57
	Grazing cattle	...	...	...	...	...	7,272	1,358	...	...	31,900	4,320	39,172	5,678
	Fodder grass (loads)	...	...	...	22	3	493	16	...	...	...	2,000	...	2,019
	Total	...	...	3	...	1,374	...	...	...	6,320	...	7,697
	Grass púlas	...	...	...	3,000	7	6,400	4	...	...	...	...	9,400	11
	Pine resin	...	...	mds.	116½	934	...	...	...	...	...	...	116½	934
	Other minor produce	...	...	...	...	...	...	477	...	...	...	500	...	977
	Total	...	...	941	...	481	...	...	...	500	...	1,922
	Total, Jaunsár Division	...	...	945	...	1,911	...	...	...	6,820	...	9,676
The Circle.	**Abstract for Reserved Forests.**												
	Bamboos	...	...	...	60	1	1,936,750	12,337	...	...	...	...	1,936,810	12,338
	Grazing and fodder grass	...	...	...	...	3	...	23,951	...	...	...	7,838	...	31,792
	Minor produce	...	...	...	...	941	...	17,412	...	...	...	500	...	18,853
	Total	...	...	945	...	53,700	...	...	...	8,338	...	62,983

II.—Protected Forests.
Nil.

III.—Unclassed State Forests.
Nil.

E. McA. MOIR,
Offg. Conservator of Forests, School Circle, N.-W. P. and Oudh

Form No. 56.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

ACCOUNT OF TIMBER AND OTHER PRODUCE CUT OR COLLECTED BY GOVERNMENT AGENCY AND BROUGHT TO SALE DEPÔTS OR SOLD LOCALLY DURING THE YEAR 1888-89.

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
BALANCE IN HAND ON 1ST APRIL, 1888.				
Dehra Dún Division. Sál ballas and tors	2,831	5,667		
Sain ditto	80	197		
Kukat ditto	1,160	1,441		
Sál ballis	432	377		
Sain ditto	23	20		
Kukat ballis and tarans ...	708	542		
Sissu logs	205	1,862		
Drift logs and pieces ...	605	2,933		
„ scantlings	32	53		
„ ballas and tors ...	63	98		
„ ballis	1	4	6,140	13,194
Firewood	...	87,500		
Ditto (drift)	...	56,770		1,44,270
Saháranpur Division. Sál timber	26	47		
„ poles	1,358	1,604		
„ saplings	179	295	1,563	1,946
Jaunsár Division. Metre gauge deodár sleepers ...	66,204	101,659		
Broad gauge ditto ...	75	272		
Broad gauge and metre gauge pieces.	660	1,259		
Deodár scantlings	4,343	6,377		
Ditto ballis	136	186		
Broad gauge chír sleepers ...	159	644		
Metre gauge ditto ...	14	54		
Fir and pine scantlings ...	1,649	2,370		
Rai sleepers and beams ...	1,979	7,991		

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
REMOVED BY PURCHASERS FROM DEPÔTS.				
Sál ballas and tors	10,675	19,589		
Sain and kukat ditto	1,240	1,638		
Sál and sain ballis	3,710	4,527		
Kukat ballis and tarans	3,729	3,720		
Sál and sissu logs	1,047	8,961		
„ timber	26	47		
„ poles	1,346	1,580		
„ saplings	175	287		
Metre gauge deodár sleepers	106,927	160,391		
Broad gauge deodár sleepers	32	64		
Ditto and metre gauge pieces	560	1,109		
Deodár sacantling	6,115	7,770		
„ ballis	114	260		
7′ Deodár sleepers	129	258		
Board gauge chír sleepers	215	764		
Metre gauge ditto	14	54		
Fir and pine scantlings	4,015	3,928		
Rai sleepers and beams	190	380		
„ ballis and poles	2	6		
Kail sleepers	389	1,343		
Broad gauge rai pieces	24	96		
Miscellaneous pieces	337	172		
Tun sleepers	1	2		
Oak ballis	10	7	141,022	216,953
Firewood drift	...	25,830		
Firewood oak	...	36,160		
Ditto fir	...	1,23,156		
Ditto miscellaneous	...	1,25,300		
			...	310,446
Ditto loads	3,906	7,812	3,906	7,812
Charcoal	...	2,798½	...	2,798½
Grass pulas	2,500	...	2,500	...

	Rainallish	21	48			
	Kail sleepers	724	2,476			
	Kail pieces	13	52			
	Sál ballis	12	12			
	Oak scantlings	25	21			
	Broad gauge rai pieces ...	24	96			
	Shikanjas and beams ...	149	829			
	Miscellaneous	399	39			
	Drift log	1	1	76,587	124,386	
	Firewood oak	...	9,490			
	Ditto fir	...	50,370			
	Ditto mixed	..	20,611	...	80,471	
	Firewood loads	494	988	494	988	
	Charcoal	...	1,749	...	1,749	
Total, balance,	Timber	...	...	84,290	139,526	
	Firewood	...	...	...	224,741	
	Ditto loads	...	..	494	988	
	Charcoal	...	...		1,749	

RECEIVED FROM THE FORESTS IN DEPÔTS.

Sál logs	539	5,569		
„ ballas	540	1,930		
„ ballis	3,264	4,157		
„ tors	7,568	12,486		
„ gats	51	204		
Tarans	3,630	3,788		
Drift scantlings	35	41		
Sál timber	19	45		
Do. poles	1,075	1,421		
Do. saplings	336	341		
Metre gauge deodár sleeper	115,473	181,612		
Broad gauge ditto	8	16		
Metre gauge and broad gauge pieces	600	400		
Deodár scantlings	15,540	15,326		
Do. ballis	200	410		
Broad gauge chír sleepers	84	224		
Fir and pine scantlings	7,747	8,476		
Rai ballis and poles	60	60		
Oak scantlings	95	66		
Shikanjas and beams	1,954	523		
Miscellaneous pieces	2,544	698		
Drift log	...	7		
Walnut	52	87		
Tun	74	142		
Kakar	30	40		

SOLD LOCALLY.

Sissu timber	14	30	14	30	
Firewood oak	...	1,000			
Ditto fir	...	900			
Ditto miscellaneous	...	104,083	...	105,983	
Ditto loads	65½	131	65½	131	
Charcoal	...	2,984	...	2,984	
Bamboos ... ... scores	3	...	3	...	
Grass loads	9	...	9	...	
Turpentine ... ... lb	53	...	53	...	
Lime	...	50		50	

DRIFT TIMBER SOLD LOCALLY.

Ballis and tarans	88	88		
Logs and pieces	382	3,512		
Scantlings	7	25	477	3,625
Firewood	...	42,874	...	42,874

LOST OR WRITTEN OFF.

Metre gauge deodár sleepers	1,654	2,481		
Deodár scantlings	41	80		
Broad gauge chír sleepers	10	38		
Fir and pine scantlings	40	90		
Rai sleepers and beams	1,697	7,443		
Kail sleepers	24	82		
Oak scantlings	16	8	3,482	10,222

CONVERTED IN DEPÔT.

Deodár karis	94	196	94	196

USED BY DEPARTMENT.

Sál trees	885	5,543		
Khair „	20	100		
Tun „	5	118		
Sissu „	3	92		
Drift logs	2	28		
„ ballas	1	4		
„ ballis	1	4		
Sál poles	12	24		
„ saplings	4	8		
Metre gauge deodár sleepers	40	53		
Broad gauge ditto	45	204		
Broad gauge and metre gauge pieces	464	393		

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

ACCOUNT OF TIMBER AND OTHER PRODUCE CUT OR COLLECTED BY GOVERNMENT AGENCY AND BROUGHT TO SALE DEPÔTS OR SOLD LOCALLY DURING THE YEAR 1888-89—*(continued.)*

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
RECEIVED FROM THE FORESTS IN DEPÔTS.				
Oak ballis	10	7		
Siris karris	45	50		
Deodár ridge pole	1	5		
Chír logs	57	615		
Kukat ballis	3	3		
Deodár posts	203	26		
7′ „ sleepers	150	300	161,987	247,475
Firewood oak	...	36,760		
„ Fir	...	78,231		
„ (miscellaneous)	...	141,867	...	256,858
Ditto loads	4,102½	8,205	4,102½	8,205
Charcoal	...	3,344	...	3,344
Resin Mds.	116½	...	1,16½	...
Lime	...	50	...	50
Grass loads	13	...	13	...
„ pulas	3,000	...	3,000	...
DEPARTMENTAL COLLECTION AND LOCAL SALE DRIFT TIMBER FROM THE GANGES.				
Logs and pieces	382	3,512		
Tarans and ballas	88	88		
Karis and bargas	7	25	477	3,625
Firewood	...	42,874	...	42,874
RECEIVED FROM THE FORESTS FOR DEPARTMENTAL USE.				
Sál trees	885	5,543		
Khair trees	20	100		

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Deodár scantlings	5,050	2,843		
„ ballis	207	320		
Fir and pine scantling	668	709		
Rai sleepers and beams	16	16		
„ ballis and poles	74	90		
Kail sleepers	21	72		
„ pieces and scantlings	13	52		
Oak scantlings	50	64		
Shikanjas and beams	1,651	7,219		
Miscellaneous pieces	701	256		
Walnut	11	5		
Siris karis	45	50		
Deodár ridge pole	1	5		
Chír logs	8	80		
Deodár posts	100	12	10,128	18,364
Firewood oak	...	2,050		
„ miscellaneous	...	1,700	...	3,750
Charcoal	...	1,26½	...	1,26½
TRANSFERRED TO OTHER DIVISIONS.				
Deodár sleepers	40	60	40	60
Resin Mds.	103½	...	103½	...
BALANCE AT CLOSE OF THE YEAR. *Dehra Dún Division.*				
Sál ballas	101	593		
„ ballis	9	27		
„ tors	225	396		
„ gats	51	204		
Sissu logs	90	287		
Kukat tarans	609	609		
Drift logs and pieces	210	1,088		
„ scantlings	67	94	1,362	3,298
Firewood	...	99,500		
Drift „	...	30,690		130,190

Tun trees	5	118	...	...											
Sissu trees	3	92	913	5,853											
Received by conversion in depôt, deodár planks ...	282	196	282	196											
RECEIVED FROM THE FOREST AND SOLD LOCALLY.															
Sissu timber	14	30	14	30											
Firewood Oak	...	1,000													
„ Fir	...	900													
„ Miscellaneous	...	104,083	...	105,983											
„ loads	65½	131	65½	131											
Charcoal	...	2,984	...	2,984											
Grass loads	9	...	9												
Turpentine ... ... lbs.	53	...	53												
Lime	...	50	...	50											
Bamboos ... ... scores	3	...	3												
SAHÁRANPUR DIVISION.															
Sál timber	19	45	...	...											
„ poles	1,075	1,421													
„ saplings	336	341	1,430	1,807											
JAUNSÁR DIVISION.															
Metre gauge deodár sleepers	73,016	120,286													
Broad gauge ditto	6	20													
Ditto and metre gauge pieces	236	157													
Deodár scantlings	8,865	11,010													
Ditto ballis	15	16													
Broad gauge chír sleepers	18	66													
Fir and pine scantlings	4,673	6,119													
„ Rai sleepers and beams	76	152													
„ ballis and poles	5	12													
Kail sleepers	290	979													
Sál ballis	12	12													
Oak scantlings	24	15													
Shikanjas and beams	452	2,133													
Miscellaneous pieces	1,905	309													
Drift log	1	8													
Walnut	41	82													
Tun	73	140													
Kakar	30	40													
Chír logs	49	535													
Kukat ballis	3	3													
Deodár posts	103	14													
7′ Deodár sleepers	21	42													
														89,914	142,150
Firewood oak	...	8,040													
„ fir	...	5,445													
„ mixed	...	23,728													
														...	37,213
„ loads	690½	1,381													
														690½	1,381
Charcoal	...	2,168													
															2,168
Grass loads	13	...													
														13	
„ pulas	500	...													
														500	
Resin ... ... mds.	13¼	...													
														13¼	
Lime	...	50												...	50
Total balances, Timber	...	...												92,706	147,255
Firewood	...	...												...	167,403
„ loads	...	...												690½	1,381
Charcoal	...	...												...	2,168
Grass loads	...	...												13	
„ pulas	...	...												500	...
Resin	...	...												1,374	
Lime	...	...												...	50

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

ACCOUNT OF TIMBER AND OTHER PRODUCE CUT OR COLLECTED BY GOVERNMENT AGENCY AND BROUGHT TO SALE DEPÔTS OR SOLD LOCALLY DURING THE YEAR 1888-89—(*concluded.*)

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Grand total ... Timber ...	...	...	247,963	396,705
Firewood	...	...	...	630,456
„ loads	...	...	4,662	9,324
Charcoal	...	...	...	8,077
Bamboos scores	...	...	3	...
Grass loads	...	...	22	...
„ pulas	...	...	3,000	...
Resin ... mds.	...	...	116¾	...
Lime ...	...	...	...	100
Turpentine ... lbs.	...	...	53	...
Abstract.				
TIMBER INCLUDING DRIFT.				
Balance in hand at commencement of year ...	...	139,526		
Received from the forests during the year ...	...	347,475		
Ditto department collection of drift timber on the Ganges.	...	3,625		
Received from the Forests Department use ...	...	5,853		
Ditto by transfer from other classes ...	...	196		
Ditto from the forests and sold locally ...	...	30		
...	...	...		396,705
Total ...	...	...		
FIREWOOD AND CHARCOAL.				
Balance at commencement of year ...	...	227,478		
Received from the forests during the year ...	...	268,407		
Ditto from department collection of drift wood from the Ganges.	...	42,874		
Received from the forests and sold locally ...	...	109,098		647,857
BAMBOOS.				
Received from the forests and sold locally ...	Scores 3 ...	...	Scores 3 ...	

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
Grand Total ... Timber ...	...	...	247,963	396,705
Firewood	...	...	...	630,456
Ditto loads	...	...	4,662	9,324
Charcoal	...	...	...	8,077
Bamboos scores	...	...	3	...
Grass loads	...	...	22	...
„ pulas	...	...	3,000	...
Resin ... mds.	...	...	116¾	...
Lime ...	...	...	...	100
Turpentine ... lbs.	...	...	53	...
Removed by purchasers from depôts ...	...	216,953		
Sold locally	...	30		
Ditto (drift timber) ...	...	3,625		
Lost or written off ...	...	10,222		
Transfered to other classes ...	...	196		
Used by department ...	...	18,364		
Transferred to other depôts ...	...	60		
Balance at close of the year ...	...	147,255	...	396,705
Removed by purchasers from depôts ...	...	3,210,561½		
Sold locally	...	109,098		
Ditto (drift wood) ...	...	42,874		
Used by department ...	...	3,876½		
Balance at close of the year ...	...	170,952		647,857
Sold locally	Scores 3 ...	...	Scores 3 ...	...

RECEIVED FROM THE FORESTS DURING THE YEAR.			MISCELLANEOUS PRODUCE.			*Removed by purchase from depôts.*			
Pine resin	mds.	116½	...			Grass pulas	2,500	...	
Lime	...	...	}	50		*Sold locally.*			
Loads	loads	13	}			Oil of turpentine	lbs.	53	...	
Grass loads and pulas	pulas	3,000	...			Grass loads		9	...	
RECEIVED FROM THE FORESTS AND SOLD LOCALLY—		...	...			Lime	...		50
Oil of turpentine	lbs.	53	...						...
Grass loads	...	9	...			*Transferred to other depôts.*			...
Lime	...	...		50		Pine resin	mds.	103½	...
						Balance at close of year.			
						Pine resin	mds.	13½	...
						Grass loads	...	13	...
						Litto pulas		500	...
						Lime	...		50

Form No. 57A.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

ABSTRACT SHOWING THE VALUE OF TIMBER AND OTHER PRODUCE AT SALE DEPÔTS FOR THE YEAR 1888-89.

Description of Timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favor of the year.	Against the year.	
Dehra Dun Division.			Rs.			Rs.	Rs.	Rs.	
Sál ballas and tors	2,831	5,667	3,093	326	989	330	...	2,763	
Sain do. do.	80	197	97	...	...	...	...	97	
Kukat do. do.	1,160	1,441	593	...	...	...	...	593	
Sál ballis	432	577	257	9	27	9	...	248	
Sain do.	23	20	15	...	...	...	...	15	
Sál gats	...	...	...	51	204	68	68	...	
Kukat ballis and tarans ...	708	542	95	609	609	203	108	...	
Sissu logs	205	1,862	1,163	90	287	95	...	1,068	
Drift logs and pieces	605	2,933	733	210	1,088	362	...	371	
Do. scantlings	32	53	32	67	94	32	...	...	
Do. ballas and tors ...	63	98	60	...	...	...	...	60	
Firewood...	...	87,500	3,500	...	99,500	3,128	...	372	
Drift do....	...	56,770	2,498	...	30,690	877	...	1,621	
Total ...	...	...	12,136	...	...	5,104	176	7,208	
Saharanpur Division.									
Sál timber	26	47	19	19	45	5	...	14	
Do. poles,...	1,358	1,604	594	1,075	1,421	545	...	49	
Do. saplings	179	295	115	336	341	128	13	...	
Total ...	...	...	728	...	...	678	13	63	

Form No. 57A.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

ABSTRACT SHOWING THE VALUE OF TIMBER AND OTHER PRODUCE AT SALE DEPÓTS FOR THE YEAR 1888-89—*(concluded.)*

Description of Timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favor of the year.	Against the year.	
Jaunsar Division.			Rs.			Rs.	Rs.	Rs.	
Broad gauge, deodár sleepers ...	75	272	150	6	20	9	...	141	
Metre gauge, ditto ...	66,204	101,659	92,282	73,016	120,286	82,143	...	10,139	
Deodár scantlings	4,343	6,377	6,515	8,865	11,010	13,297	6,782	...	
Metre gauge, chír sleepers ...	14	54	10	...	...	...	...	10	
Broad gauge, ditto ...	159	644	119	18	66	14	...	105	
Pine, fir, and tun shikanjas ...	149	829	80	452	2,133	226	146	...	
Metre gauge and broad gauge pieces,	660	1,259	330	236	157	118	...	212	
Miscellaneous pieces	399	39	150	1,905	309	238	88	...	
Sál ballis	12	12	1	12	12	1	...	...	
Pine and fir scantlings ...	1,649	2,370	830	4,673	6,119	2,336	1,506	...	
Deodár ballis	136	186	136	15	16	30	...	106	
Rai sleepers and beams ...	1,979	7,991	3,959	76	152	10	...	3,949	
Rai ballis...	21	48	21	5	12	5	...	16	
Kail sleepers	724	2,476	1,448	290	979	363	...	1,085	
Do. pieces	13	52	6	...	...	...	...	6	
Oak scantling	25	21	13	24	15	12	...	1	
Broad gauge, rai pieces ...	24	96	6	...	...	...	...	6	
Drift logs	1	1	2	1	8	2	...	...	
Oak and fir firewood	...	80,471	15,672	...	37,213	7,231	...	8,441	
Firewood load	494	988	16	690½	1,381	129	113	...	
Charcoal	...	1,749	358	...	2,168	407	49	...	
Fodder grass loads and pulas ...	...	...	...	23	...	2	2	...	
Walnut sleepers, &c.	...	...	...	41	82	62	62	...	
Tun ditto	...	...	...	73	140	91	91	...	
Kukar ditto	...	...	...	30	40	45	45	...	
Chír logs	...	...	...	49	535	49	49	...	
Kukat ballis	...	...	...	3	3	1	1	...	
Deodár posts	...	...	...	103	14	13	13	...	
7′ deodár sleepers	...	...	...	21	42	21	21	...	
Rine resin ... Mds.	...	...	...	13½	...	53	53	...	
Lime ... ... C. ft.	...	...	...	...	50	10	10	...	
Total ...	...	...	1,22,104	...	...	1,06,918	9,031	24,217	
GRAND TOTAL ...	...	...	1,34,968	...	...	1,12,700	9,220	31,488	

Net difference against the year, Rs. 22,268.

DEHRA DÚN:
The 29th May, 1889.

F. BAILEY, LIEUT.-COL., R.E.,
Conservator of Forests, School Circle, N.-W. P. and Oudh.

Form No. 57B.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

ABSTRACT SHOWING THE VALUE OF LIVE AND DEAD STOCK FOR THE YEAR 1888-89.

Description of live and dead stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in value.		Remarks.
	Number.	Value.	Number.	Value.	In favor of the year.	Against the year.	
Direction Division.		Rs.		Rs.	Rs.	Rs.	
Office furniture	43	565	50	723	158	...	
Tents	6	718	6	418	...	300	
Buildings and building materials ...	11	36,443	13	38,064	1,621	...	
Miscellaneous	20	88	23	158	70	...	
Elephants	1	1,709	1	1,700	...	...	
Total ...	...	39,514	...	41,063	1,849	300	
Dehra Dun Division.							
Surveying and other instruments ...	84	251	69	227	...	24	
Tools	1,890	1,165	1,763	986	...	179	
Office furniture	397	811	426	897	86	...	
Tents	15	393	16	166	...	227	
Buildings and building materials ...	97	19,888	103	21,377	1,489	...	
Miscellaneous	481	726	501	791	65	...	
Elephants	1	2,800	1	2,800	...	...	
Total ...	...	26,034	...	27,244	1,640	430	
Saharanpur Division.							
Surveying and other instruments ...	14	71	16	73	2	...	
Machinery	18	44	13	42	...	2	
Tools	765	343	890	401	58	...	
Office furniture	141	779	178	960	181	...	
Tents	5	348	6	452	104	...	
Buildings and building materials ...	30	6,610	42	9,824	3,214	...	
Miscellaneous	527	1,373	541	1,403	30	...	
Elephants	1	1,700	1	1,200	...	500	
Total ...	...	11,288	...	14,355	3,589	502	
Jaunsar Division.							
Surveying and other instruments ...	45	371	53	431	60	...	
Machinery	11	97	11	154	57	...	
Tools	2,265	2,692	2,662	3,266	574	...	
Office furniture	49	452	64	532	80	...	
Tents	8	259	8	244	...	15	
Buildings and building materials ...	357	34,492	382	42,632	8,140	...	
Miscellaneous	532	546	13,369	1,234	688	...	
Total ...	...	38,909	...	48,493	9,599	15	
GRAND TOTAL ...	...	1,15,725	...	1,31,155	16,677	1,247	

Net difference in favor of the year, Rs. 15,430.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W PROVINCES AND OUDH.

SUMMARY OF REVENUE OF THE DIFFERENT DIVISIONS DURING 1888-89.

Budget Heads.	Direction.	Dehra Dún Division.	Saháranpur Division.	Jaunsár Division.	Total.
RECEIPTS.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other produce removed from the Forests by Government agency—					
a. Timber	...	14,674 6 6	721 5 11	1,83,192 9 2	1,98,588 5 7
b. Firewood and charcoal	...	2,003 8 0	2,370 0 0	35,733 1 8	40,106 9 8
c. Bamboos	...	...	...	0 12 0	0 12 0
d. Sandal-wood	...	...	...	...	...
e. Grass and other minor produce	...	...	...	94 12 0	94 12 0
II.—Timber and other produce removed from the Forests by consumers or purchasers—					
a. Timber	...	44,765 13 8	553 4 5	12,460 5 3	57,779 7 4
b. Firewood and charcoal	...	8,533 13 3	2,873 4 0	103 1 0	11.510 2 3
c. Bamboos	...	5,381 5 4	6,900 6 6	155 13 0	12,437 8 10
d. Grazing and fodder grass	...	7,389 9 7	19,896 11 8	1,377 15 3	28,664 4 6
e. Other minor produce	...	6,581 4 1	10,659 8 8	477 6 9	17,718 3 6
III.—Drift and Waif wood, and confiscated Forest produce	...	7,339 4 7	...	85 14 6	7,425 3 1
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce	...	...	...	13,776 13 2	13,776 13 2
b. Revenue from shared and private forests	...	...	...	18 0 0	18 0 0
V.—Miscellaneous—					
a. Fines and forfeitures	...	...	29 3 6	2 6 0	31 9 6
b. Refunds	...	0 14 0	...	46 14 4	47 12 4
c. Other sources	690 9 9	286 2 9	70 1 3	1,069 0 9	2,115 14 6
Total Receipts	690 9 9	96,956 1 9	44,073 13 11	2,48,594 12 10	3,90,315 6 3

Calcutta :
The 1st June, 1889.

Jas. TAYLOR,
Assistant Comptroller-General (Forests).

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

SUMMARY OF EXPENDITURE OF THE DIFFERENT DIVISIONS DURING 1888-89.

Budget Heads.	Direction.	Dehra Dún Division.	Sahâranpur Division.	Jaunsâr Division.	Total.
A.—CONSERVANCY AND WORKS.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other produce removed from the Forests by Government Agency—					
a. Timber	7 14 0	6,270 12 6	417 15 9	91,423 8 11	98,120 3 2
b. Firewood and charcoal	...	3,459 6 3	872 9 0	18,555 7 6	22,887 6 9
c. Bamboos	...	...	...	...	...
d. Sandal-wood	...	...	...	...	...
e. Grass and other minor produce	...	...	...	2,144 4 1	2,144 4 1
II.—Timber and other produce removed from the Forests by Consumers or Purchasers...	...	1,876 14 4	775 11 3	...	2,652 9 7
III.—Drift and Waif wood and confiscated Forest produce	...	2,689 5 2	...	2 14 0	2,692 3 2
IV.—Revenue from Forests not managed by Government—					
a. Duty on foreign timber and other forest produce	...	...	...	3,417 5 8	3,417 5 8
b. Revenue from shared and private forests	...	...	...	...	...
V.—Rent of leased Forests and payments to Shareholders in Forests managed by Government	...	...	...	11,150 0 0	11,150 0 0
VI.—Live Stock, Stores, Tools and Plant—					
a. Purchase of cattle	...	...	...	...	...
b. Feed and keep of cattle	636 5 4	630 9 1	609 15 10	...	1,876 14 3
c. Purchase of stores, tools and plant	228 13 4	411 7 4	447 11 11	1,053 7 9	2,141 8 4
VII.—Communications and Buildings—					
a. Roads and bridges	9 0 4	2,290 1 11	603 6 7	3,726 0 7	6,628 9 5
b. Buildings	425 1 0	3,025 6 8	2,653 2 7	7,624 13 0	13,728 7 3
c. Other works	58 15 0	14 7 4	45 7 0	79 4 2	198 1 6
VIII.—Demarcation, Improvement and extension of Forests—					
a. Demarcation	...	107 15 8	485 11 4	1,719 7 10	2,313 2 10
b. Compensation for land and rights	...	...	...	...	

c. Surveys and working plans	...	...	...	278 13 3	278 13 3
d. Sowing and planting	...	531 0 3	164 3 0	1,048 3 5	1,743 6 8
e. Protection from fire	...	3,712 0 6	2,378 10 6	1,689 15 5	7,780 10 5
f. Other works	...	3,082 7 6	67 12 6	1,788 5 10	4,938 9 10
IX.—Miscellaneous—					
a. Refunds	...	57 9 0	...	520 12 8	577 12 8
b. Law charges	...	51 4 6	8 6 0	4 5 0	63 15 6
c. Other charges	822 14 8	962 9 4	254 15 10	847 6 9	2,887 14 7
Total A.—Conservancy and Works ...	2,188 15 8	29,172 12 4	9,785 11 1	1,47,074 7 10	1,88,221 14 11
B.—ESTABLISHMENT.					
I.—Salaries—					
a. Conservator	12,532 4 1	...	...	...	12,532 4 1
b. Superior officers	1,811 9 5	7,856 10 8	3,209 3 11	12,448 6 2	25,325 14 2
c. Subordinate forest and depôt establishments	...	8,149 15 2	6,038 9 5	6,634 5 0	20,822 13 7
d. Office establishments	2,724 0 0	2,146 4 3	1,409 2 8	2,116 6 5	8,395 13 4
e. Deputation and special allowances	45 2 7	...	...	...	45 2 7
II.—Travelling Allowance—					
a. Conservators	827 11 7	...	...	...	827 11 7
b. Superior officers	479 6 0	1,158 12 6	992 0 0	972 0 0	3,602 2 6
c. Subordinate forest and depôt establishments	...	957 1 7	309 12 0	824 8 4	2,091 5 11
d. Office establishments	29 4 0	136 3 4	102 0 0	18 1 4	285 8 8
III.—Contingencies.—					
a. Stationery	3 1 6	84 10 0	25 11 2	51 8 3	164 14 11
b. Carriage of tents and records	232 14 2	331 8 1	287 13 11	282 5 6	1,134 9 8
c. Rents, rates and taxes	...	360 0 0	...	6 0 0	366 0 0
d. Pay of police guards	...	...	...	...	...
e. Official Postage	225 3 0	104 1 0	114 15 0	106 0 0	550 3 0
f. Sundries	1,519 5 7	644 13 9	288 4 4	651 6 6	3,103 14 2
Total B.—Establishments	20,429 13 11	21,930 0 4	12,777 8 5	24,110 15 6	79,248 6 2
Grand Total of Expenditure	22,618 13 7	51,102 12 8	22,563 3 6	1,71,185 7 4	2,67,470 5 1

Calcutta:
The 1st June, 1889.

Jas. TAYLOR,
Assistant Comptroller-General (Forests.)

Form No. 59.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

ACCOUNT CURRENT FOR THE YEAR 1888-89.

Dr. **Cr.**

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To Cash Balance	...	...	*By Expenditure as per Annual Summary, Form No.* 58 ...	...	2,67,470 5 1
„ *VIII.—Assessed Taxes—*					
Income Tax—Deductions from salaries...	...	1,130 12 7	„ *Deposits*	...	1,350 0 0
„ *Revenue as per Annual Summary, Form No.* 58	...	3,90,315 6 3	„ *Forest Cash Remittances, Local—*		
„ *Service Funds—*					
Civil Fund—Ordinary, (Bengal)	...	...	Remittances to Treasuries	1,76,422 15 11	...
Do. Additional, (do.)	...	...	Inter-Divisional Transfers	764 14 3	1,77,187 14 2
Military Fund (Bengal)	...	...	„ *Advances Recoverable*	...	1,64,283 7 9
Do. (Madras)	...	...			
Do. Orphan Fund (Bengal)	...	...	„ *Suspense*	...	0 11 0
Uncovenanted Service Family Pension Fund (Bengal) ...	...	436 14 0	„ *Account Current (other Governments)—*		
General Family Pension Fund	...	...	Remittances to the Government of India	196 10 10	...
Hindu Family Annuity Fund	...	...	Ditto ditto Panjáb	6 3 0	
„ *Deposits*	...	1,850 0 0			204 13 10
„ *Forest Cash Remittances, Local—*					
Forest cheques drawn	2,56,454 15 9	...	„ *Inter-Departmental Transfers—State Railways*		
Inter-Divisional Transfers	764 14 3	2,57,219 14 0	Public Works Department Rajputana, Malwa Railway ...	1,55,143 11 0	...
„ *Advances recoverable*	...	1,65,584 5 10	Ditto other branches	30,937 3 6	...
„ *Suspense*	...	...			
„ *Account Current (other Governments)—*					
Remittances from Government of India	1,169 1 3	...	Military Department (Bengal)	31,246 7 7	2,17,327 6 1
Ditto ditto Assam	9 0 0	...			
„ *Inter-Departmental Transfers—*		1,178 1 3			
Public Works Department, other Branches	9,226 7 0	...	Civil Department	...	...
Military Department (Bengal)	310 8 0	...	Miscellaneous	103 6 0	103 6 0
Civil Department—					
Jail...	...	...			
Rs. a. p.					
Mathematical Instruments Department ... 90 0 0	...	...			
Miscellaneous 382 14 0	...	...	*Cash Balance*	...	...
Survey of India 202 13 0	675 11 0	10,212 10 0			
Total	...	8,27,927 15 11		...	8,27,927 15 11

CALCUTTA:
The 1st June, 1889.

JAS. TAYLOR,
Assistant Comptroller-General (Forests).

Form No. 60.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

REVENUE RECEIVED AND OUTSTANDINGS ON ACCOUNT OF REVENUE DURING 1888-89.

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Direction ...	Sale proceeds of timber and other forest produce.	...	690 9 9	690 9 9	690 9 9	...
Dehra Dún ...	Ditto ditto ...	6,205 1 6	1,07,147 7 3	1,13,352 8 9	96,956 1 9	16,396 7 0
Saháranpur ...	Ditto ditto ...	8,725 8 3	39,593 9 4	48,319 1 7	(a) 44,366 10 8	3,952 6 11
Jaunsár ...	Ditto ditto ...	8,532 2 11	2,72,923 8 10	2,81,455 11 9	(b)2,49,433 12 10	32,021 14 11
	Total ...	23,462 12 8	4,20,355 3 2	4,43,817 15 10	3,91,447 3 0	52,370 12 10

(a) Includes Rs. 202-12-9 written off under Government Order Nos. $\frac{277}{795-2}$, $\frac{685}{859-2}$, and $\frac{303}{807-2}$, dated 25th May, 2nd November, and 3rd July, 1888, respectively.

(b) Includes Rs. 839 written off under Government Order Nos. $\frac{87F}{774-7}$ and $\frac{239F}{912-2}$, dated 4th February and 25th March, respectively.

Form No. 61.

OUTSTANDINGS AND LIABILITIES ON ACCOUNT OF CONTRACTORS AND DISBURSERS FOR 1888-89.

Division.	Department Debtor.			Department Creditor.			Balance Due.	
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings.)	By Department (Liabilities.)
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Direction,	6 5 0	1,515 4 4	1,521 9 4	288 4 9	1,270 14 10	1,559 3 7	27 10 8	...
Dehra Dún,	1 5 3	32,013 13 7	32,015 2 10	1,850 6 5	33,136 3 0	34,986 9 5	2,972 11 10	1 5 3
Saháranpur,	22 0 5	8,554 4 7	8,576 5 0	547 5 7	8,365 0 8	8,912 6 3	336 1 3	...
Jaunsár ...	...	1,23,500 15 4	1,23,500 15 4	25,946 7 7	1,21,511 5 3	1,47,457 12 10	23,956 13 6	...
Total ...	29 10 8	1,65,584 5 10	1,65,614 0 6	28,632 8 4	1,64,283 7 9	1,92,916 0 1	27,303 4 10	1 5 3

Form No. 62.

FINANCIAL RESULTS OF THE YEAR 1888-89.

Division.	Timber and other produce removed from the forest by Government Agency.		Other Revenue.		Formation, protection and improvement of forests.	Total.	
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dehra Dún	24,017	15,317	72,939	11,353	24,433	96,956	51,103
Saháranpur	3,091	3,008	40,982	6,328	13,227	44,073	22,563
Jaunsár	*2,19,107	1,24,494	29,488	5,267	*41,424	2,48,595	1,71,185
Direction	...	7,540	691	7,539	7,54	691	22,619
Total ...	2,46,215	150,359	1,44,100	30,487	86,624	3,90,315	2,67,470
Total for 1887-88 ...	2,28,279	1,40,581	1,28,855	31,632	1,05,379	3,57,134	2,77,592

* Not including Rs. 13 606 for price of 8,063 sleepers not paid for by the Railway.

CALCUTTA:
The 1st June, 1889.

JAS. TAYLOR,
Assistant Comptroller-General (Forests).

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FOREST DEPARTMENT, SCHOOL CIRCLE.

STATEMENT OF TREES FELLED

Description of trees.	Selection fellings.								Thinnings.			
	By Government agency.		By contractors.		By grantees.		Total.		By Government agency.		By contractors.	
	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.
Dehra Dún Division.												
Sál	968	5,500	...	...	179	929	1,147	6,429	7,200	37,487	49,989	225,971
Sain	...	...	...	...	...	...	...	...	382	1,200	2,984	12,586
Sissu	23	115	...	...	4	20	27	135	...	...	1	20
Tún	5	25	...	...	4	20	9	45	...	...	...	...
Khair	20	100	...	...	...	...	20	100	...	...	...	...
Miscellaneous	624	2,921	...	...	...	...	624	2,921	22,061	75,207	49,253	54,640
Total, 1888-89,	1,640	8,661	...	...	187	969	1,827	9,630	29,643	113,894	102,227	293,217
Total, 1887-88,	1,005	8,984	1,737	19,485	14	84	2,756	28,553	28,362	142,095	53,473	123,878
Saharanpur Division.												
Sál	...	...	...	...	...	...	...	...	6,577	6,807	*650	473
Sissu	14	30	18	36	...	...	*32	66	...	...	...	...
Miscellaneous	...	...	...	..	...	...	...	...	73,956	59,925	(a)2,218	1,670
Total, 1888-89,	14	30	18	36	...	...	32	66	80,533	66,732	2,868	2,143
Total, 1887-88	...	...	125	3,967	...	...	125	3,967	900	1,657	2,564	2,876
Jaunsar Division.												
Deodár	2,787	278,700	806	80,600	96	9,600	3,689	368,900	...	...	...	...
Chír	345	27,600	2,051	164,080	439	35,120	2,835	226,800	...	...	...	...
Rai and Morinda,	436	104,880	...	...	49	3,920	485	108,800	...	...	...	...
Oak	1,045	37,760	65	1,950	180	5,400	1,290	45,110	...	...	...	...
Kákar	8	240	...	...	...	...	8	240	...	...	...	...
Miscellaneous	619	13,195	...	...	172	860	791	14,055	...	...	...	...
Walnut	4	200	...	...	...	...	4	200	...	...	...	...
Kail	3	240	...	...	487	38,960	490	39,200	...	...	...	...
Sál and Sain	...	...	3	15	35	175	38	190	...	...	...	...
Sissu	...	...	...	...	2	100	2	100	...	...	...	...
Total, 1888-89,	5,247	462,815	2,925	246,645	1,460	94,135	9,632	803,595	...	...	...	...
Total, 1887-88,	4,022	430,405	4,882	388,575	1,931	133,205	10,835	952,185	468	468	...	...
School Circle.												
Sál	968	5,500	...	...	179	929	1,147	6,429	13,777	44,294	50,639	226,444
Sain	...	...	...	...	...	...	...	...	382	1,200	2,984	12,586
Sál and Sain	...	...	3	15	35	175	38	190	...	...	...	...
Sissu	37	145	18	36	6	120	61	301	...	...	1	20
Tún	5	25	...	...	4	20	9	45	...	...	...	...
Khair	20	100	...	...	...	...	20	100	...	...	...	...
Deodár	2,787	278,700	806	80,600	96	9,600	3,689	368,900	...	...	...	...
Chír	345	27,600	2,051	164,080	439	35,120	2,835	226,800	...	...	...	...
Rai and Morinda,	436	104,880	...	...	49	3,920	485	108,800	...	...	...	...
Oak	1,045	37,760	65	1,950	180	5,400	1,290	45,110	...	...	...	...
Kákar	8	240	...	...	...	...	8	240	...	...	...	...
Walnut	4	200	...	...	...	...	4	200	...	...	...	...
Kail	3	240	...	...	487	38,960	490	39,200	...	...	...	...
Miscellaneous	1,243	16,116	...	...	172	860	1,415	16,976	96,017	135,132	51,471	56,310
Grand Total. 1888-89	6,901	471,506	2,943	246,681	1,647	95,104	11,491	813,291	110,176	180,626	105,095	295,360
1887-88	5,027	439,389	6,744	412,027	1,945	133,289	13,715	984,705	29,730	144,220	38,027	126,754
1886-87	4472	288,463	2,496	144,980	1,120	76,766	8,088	510,209	39,148	62,445	9,020	77,648
1885-86	4,788	224,569	2,936	223,179	1,450	107,040	9,174	554,788	22,522	48,143	19,636	74,789

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N.-W. PROVINCES AND OUDH.

DURING THE YEAR 1888-89.

By grantees.		Total.		Clearances. By Government.		By contractors.		By grantees.		Total.		Grand Total.		Remarks.
Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	Number.	Cubic feet.	
...	...	57,189	263,458	...	...	...	...	...	...	...	...	58,336	269,887	
...	...	3,366	13,786	...	...	...	...	...	...	...	...	3,366	13,786	
...	...	1	20	...	...	...	...	...	...	...	...	28	155	
...	...	...	...	...	...	...	...	...	...	...	...	9	45	
...	...	...	...	...	...	...	...	...	...	...	...	20	100	
...	...	71,314	129,847	6	12	...	...	...	...	6	12	71,944	132,780	
...	...	131,870	407,111	6	12	...	...	...	...	6	12	133,703	416,753	
...	..	63,835	265,973	540	261	138	684	102	62	780	1,007	67,371	295,533	
...	...	7,227	7,280	...	...	5,307	11,000	...	...	5,307	11,000	12,534	18,280	* Dry trees.
...	...	...	...	...	...	...	...	...	...	...	...	32	66	
76	152	76,250	61,747	...	...	4,709	9,000	...	...	4,709	9,000	80,959	70,747	(a) Includes 200 dry-trees = 267 C. ft.
76	152	83,477	69,027	...	...	10,016	20,000	...	...	10,016	20,000	93 525	89,093	
...	...	3,464	4,533	...	...	...	...	...	...	...	...	3,589	8,500	
														Deodár.
...	...	...	...	...	...	...	...	30	3,071	30	3,071	3,719	371,971	During 1888-89.
...	...	...	...	...	...	...	...	...	...	...	...	2,835	226,800	C. ft.
...	...	...	...	...	...	...	...	1	49	1	49	486	108,849	278,700
...	...	...	...	1,500	6,400	...	...	...	...	1,500	6,400	2,790	51,510	Shown in Form
...	...	...	...	...	...	...	...	...	...	...	...	8	240	No. 54 ... 193,291
...	...	...	...	8,121	28,936	18	60	361	1,301	8,500	30,297	9,291	44,352	Unsawn ... 2,109
...	...	...	...	...	...	...	...	...	...	...	...	4	200	
...	...	...	...	...	...	...	...	...	...	...	...	490	39,200	Total ... 300,391
...	...	...	...	...	...	...	...	...	...	...	...	38	190	
...	...	...	...	...	...	...	...	...	...	...	...	2	100	Lost by conversion ... 78,309
														Raj and Morinda.
...	...	...	...	9,621	35,336	18	60	392	4,421	10,031	39,817	19,663	843,412	Balance of last year ... 1,120
...	...	468	468	3,050	12,121	...	...	...	...	3,050	12,121	14,353	964,774	During 1888-89, 132,720
														Total ... 133,840
...	...	64,416	270,738	...	...	5,307	11,000	...	...	5,307	11,000	70,870	288,167	Shown in Form
...	...	3,366	13,786	...	...	...	...	...	...	...	...	3,366	13,786	No. 54 ... 99,191
...	...	...	...	...	...	...	...	...	...	...	...	38	190	Unsawn ... 11,533
...	...	1	20	...	...	...	...	...	...	...	...	62	321	
...	...	...	...	...	...	...	...	...	...	...	...	9	45	Total ... 109,124
...	...	...	...	...	...	...	...	...	...	...	...	20	100	
...	...	...	...	...	...	...	...	30	3,071	30	3,071	3,719	371,971	Lost by conversion ... 33,716
...	...	...	...	...	...	...	...	...	...	...	...	2,835	226,800	
...	...	...	...	...	...	...	...	1	49	1	49	486	108,849	
...	...	...	...	1,500	6,400	...	...	...	...	1,500	6,400	2,790	51,510	
...	...	...	...	...	...	...	...	...	...	...	...	8	240	
...	...	...	...	...	...	...	...	...	...	...	...	4	200	
...	...	...	...	...	...	...	...	...	...	...	...	490	39,200	
76	152	147,364	401,594	8,127	28,948	4,727	9,060	361	1,301	13,215	39,309	102,194	247,879	
76	152	215,347	476,138	9,627	35,348	10,034	20,060	392	4,421	20,053	59,829	246,891	1,349,258	
...	...	67,767	270,974	3,590	12,382	138	684	102	62	3,830	13,128	85,313	1,268,807	
...	...	39,768	140,093	...	...	...	...	...	...	...	...	47,856	650,302	
...	...	42,208	122,937	...	...	...	...	...	...	...	...	51,382	677,723	

Appendix B.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

YIELD IN PRODUCE.

Description of produce.	1887-88.		1888-89.	
	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.
Timber, cubic feet	978,048	3,09,021	721,973	2,99,863
Poles, „	115,117	12,338	57,801	24,564
Saplings, „	54,055	3,097	3,039	995
Bamboos, scores	1,02,161½	10,157	96,841	12,338
Firewood, cubic feet	2,769,850	1,03,646	2,549,956	91,869
Charcoal, „	5,472	1,263	7,845	1,739
Minor produce	...	14,400	...	18,853
Grazing dues and fodder grass	...	23,084	...	23,954
Amount of free grazing...	...	7,839	...	7,888
Total for the Circle ...	...	4,84,845	...	4,82,013

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

DISPOSAL OF PRODUCE COLLECTED BY GOVERNMENT AGENCY, 1888-89.

Description of produce.	Sold Locally.				Depôt transactions.															
	1887-88.		1888-89.		Balance in hand on commencement of the year.				Brought to Depôt.				Total received in Depôt.				Removed by purchasers from Depôt.				Lost or written off as useless.			
					1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Timber ... c. ft.	...	...	55	43	87,240	69,568	129,281	1,08,005	256,943	2,42,913	217,579	2,04,663	344,183	3,12,481	346,860	3,12,668	192,577	1,90,714	181,446	1,98,806	2157	1,078	10,222	5,111
Poles and saplings ... „	...	...	3,600	2,060	22,559	6,566	10,245	4,919	36,079	11,313	35,945	18,188	58,638	17,879	46,190	23,107	47,998	12,811	35,507	19,432	...	...	...	*29
Firewood ... „	42,575	1,767	148,857	6,393	79,195	14,418	224,741	21,670	393,530	33,300	256,858	26,593	472,725	47,718	481,599	48,263	247,950	26,045	310,446	36,844	34	3	...	...
Ditto (loads) ...	102	6	65½	4	63	4	494	16	468	17	4,102½	844	531	21	4,596½	860	37	5	3,906	731	...	...	...	...
Charcoal ... c. ft.	1,565	447	2,984	632	1,439	275	1,749	358	2,827	706	3,344	901	4,266	981	5,093	1,259	2,266	567	2,798½	822	...	...	...	...
Bamboos ... No.	...	...	3	1	...	...	...	...	30	1	...	...	30	1	...	...	...	...	...	...	...	...	...	...
Grass (pulas)	...	...	...	...	...	...	...	...	...	...	3,000	7	42	1	3,000	7	...	...	2,500	5	...	...	...	...
Fodder grass ... (loads)	99	31	9	...	42	1	...	...	...	...	13				13		...	...	...	...	42	1	...	...
Lime ... c. ft.	...	...	50	10	...	...	...	...	...	...	50	10	...	...	50	10	...	...	...	...	...	...	...	...
Pine resin mds.	...	...	...	...	...	...	...	...	...	...	116¾	881	...	...	116¾	881	...	...	...	...	...	...	...	...
Turpentine lbs.	...	...	53	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ..	...	2,251	...	9,143	...	90,831	...	1,34,968	...	2,88,250	...	2,52,087	...	3,79,082	...	3,87,055	...	2,30,142	...	2,56,640	...	1,082	...	5,140

Description of produce.	Depôt transactions—(*concluded*).												Balance in hand on close of the year.			
	Used by the department from the Depôt				Converted in Depôt.				Transferred to the Forest School.				Total issued from Depôt.							
	1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
Timber ... c. ft.	19,349	11,661	12,443	9,332	...	...	196	98	819	1,023	60	130	214,902	2,04,476	204,367	2,13,477	129,281	1,08,005	142,493	99,191
Poles and saplings ... „	395	149	5,921	1,974	...	...	...	...	...	...	...	...	48,393	12,960	41,428	21,435	10,245	4,919	4,762	1,672
Firewood „	...	...	3,750	183	...	...	...	...	...	...	...	...	427,984	26,048	314,196	37,027	224,741	21,670	167,403	11,236
Ditto ... (loads)	...	...	...	...	...	...	...	...	...	...	...	...	37	5	3,906	731	494	16	690½	129
Charcoal ... c. ft.	251	56	126½	30	...	...	...	...	...	...	...	...	2,517	623	2,925	852	1,749	358	2,168	407
Bamboos ... (scores)	30	1	...	..	...	...	...	...	...	...	...	...	30	1	...	...	...	...	...	...
Grass ... (pulas)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,500	5	...	..	500	...
Fodder grass ... (loads)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	2
Lime ... c. ft.	...	...	...	...	...	...	...	...	...	...	...	...	42	1	...	...	...	...	50	10
Pine resin ... mds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Turpentine ... lbs.	...	...	...	..	...	...	...	...	...	...	103½	828	...	...	103½	828	...	...	13¼	53
Total ..	...	11,867	...	11,519	...	...	...	98	...	1,023	...	958	...	2,44,114	...	2,74,355	...	1,34,968	...	1,12,700

* Deterioration in value in the Sahâranpur Division.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

STOCK ACCOUNT, 1888-89.

Description of stock.	On hand at commencement of the year.										On hand at close of the year.										Increase or decrease in value.				
	Dehra Dún Division.		Saháranpur Division.		Jaunsár Division.		Direction Division.		Total.		Dehra Dún Division.		Saháranpur Division.		Jaunsár Division.		Direction Division.		Total.		Dehra Dún.	Saháranpur.	Jaunsár.	Direction.	Total.
	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.	Cubic feet.	Value.					
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Timber ...	13,194	6,138	1,946	728	124,386	1,06,058	...	...	139,526	1,12,924	3,298	1,099	1,807	678	142,150	99,086	...	...	147,255	1,00,863	−5,039	−50	−6,972	...	−12,061
Firewood and charcoal	144,270	5,998	...	...	83,208	16,046	...	...	227,478	22,044	130,190	4,035	...	...	40,762	7,767	...	...	170,952	11,772	−1,993	...	−8,279	...	−10,272
Minor produce ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	65	...	...	...	65	...	...	+65	...	+65
Live stock ...	...	2,800	...	1,700	...	...	...	1,700	...	6,200	...	2,800	...	1,200	...	...	...	1,700	...	5,700	...	−500	...	...	−500
Dead stock, including building, furniture, &c.,	...	23,234	...	9,568	...	38,909	...	37,814	...	1,09,525	...	24,444	...	13,155	...	48,493	...	39,363	...	1,25,455	+1,210	+3,587	+9,584	+1,549	+15,930
Total ...	...	38,170	...	11,996	...	1,61,013	...	39,514	...	2,50,993	...	32,348	...	15,033	...	1,55,411	...	41,063	...	2,43,855	−5,822	+3,037	−5,602	+1,549	−6,838

Appendix E.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

MAIN FACTS OF THE YEAR 1888-89.

Items.	Main facts.		Dehra Dún Division.	Saháranpur Division.	Jaunsár Division.	Total.
1	Green trees felled	No.	133,703	92,643	19,663	246,891
2	Yield of above timber and fuel	C. ft.	416,753	88,287	843,412	1,348,452
3	Yield of timber including timber from dry trees ...	„	215,250	4,168	563,995	783,413
4	Value of above	Rs.	75,754	1,264	2,48,404	3,25,422
5	Yield of green timber	C. ft.	210,156	3,363	563,995	777,513
6	Value of above	Rs.	74,375	970	2,48,404	3,23,749
7	Yield of dry timber	C. ft.	5,094	806	...	5,900
8	Value of above	...	1,379	294	...	1,673
9	Yield of green timber removed by departmental agency.	C. ft.	38,053	1,807	217,289	257,149
10	Value of above	Rs.	19,744	678	2,17,289	237,711
11	Yield of green timber removed by exporters ...	C. ft.	171,134	1,403	249,151	4,21,688
12	Value of above	Rs.	54,185	263	23,690	78,138
13	Yield of green timber removed by grantees and right-holders.	C. ft.	969	152	97,555	98,676
14	Value of above	Rs.	446	29	7,425	7,900
15	Yield of dry timber removed by exporters ...	C. ft.	5,094	806	...	5,900
16	Value of above	Rs.	1,379	294	...	1,673
17	Yield of dry timber removed by free grantees and right-holders.	C. ft.	...	...	...	...
18	Value of above	Rs.	...	...	...	...
19	Yield of firewood and charcoal	...	768,992	164,830	1,623,979	2,557,801
20	Value of above	Rs.	18,705	5,383	69,520	93,608
21	Yield of fuel removed by departmental agency ...	C. ft.	180,074	89,950	157,355	427,379
22	Value of above	Rs.	5,338	2,570	23,616	31,524
23	Yield of fuel removed by purchasers... ...	C. ft.	382,710	74,880	3,984	461,574
24	Value of above	Rs.	8,884	2,813	207	11,554
25	Yield of fuel removed by free grantees and right-holders	C. ft.	206,208	...	1,462,640	1,668,848
26	Value of above	Rs.	4,833	...	45,697	50,530
27	Timber sold by departmental agency... ...	C. ft.	42,060	1,944	176,604	220,608
28	Receipts from above	Rs.	16,685	721	1,96,799	2,14,205
29	Timber sold direct to purchasers	...	176,228	2,179	249,151	427,558
30	Receipts from above	Rs.	55,564	523	23,690	79,777
31	Fuel sold by departmental agency	C. ft.	194,164	82,950	192,190	469,304
32	Receipts from above	Rs.	7,331	2,370	35,738	45,434
33	Fuel sold direct to purchasers	...	382,710	74,880	3,984	461,574
34	Receipts from above	Rs.	8,534	2,813	207	11,554
35	Bamboos sold	(Scores)	38,130	55,154½	3,556	96,840½
36	Value of above	Rs.	5,381	6,900	57	12,338
37	Minor produce and grazing	„	14,217	26,809	9,618	50,644
38	Value of other receipts	„	978	99	14,913	15,990
39	Yield per square mile in cubic feet of timber and fuel ...		...	...	...	4,099
40	Value of above per square mile	Rs.	...	...	...	514
41	Gross receipts ditto	„	...	...	...	479
42	Net ditto ditto	„	...	...	...	

Appendix F.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

EXPENDITURE ON BOUNDARIES.

Particulars of work.	Names of Division.			Total for 1888-89.	Total for the previous year.
	Dehra Dún.	Saháran-pur-	Jaunsár.		
	Rs.	Rs.	Rs.	Rs.	Rs.
Construction and repairs of pillars	13	149	1,039	1,201	600
Clearing boundary lines	94	312	637	1,043	959
Miscellaneous	1	25	43	69	195
Total ...	108	486	1,719	2,313	1,753

CONDITION OF BOUNDARIES.

Division.	Number of pillars.				Miles of artifical boundary.	
	In good condition.	Requiring repairs.	To be rebuilt.	Total.	Total.	Inspected during the year and found in good condition.
Dehra Dún	575	352	82	1,009	131	131
Saháranpur	385	82	6	473	124	124
Jaunsár	1,315	138	72	1,525	448	379
Total ...	2,275	572	160	3,007	703	634

Appendix G.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

TABLE SHOWING THE AREA AND POSITION OF EACH FIRE REPORTED DURING THE SEASON OF 1888-89, AND ITS PROBABLE CAUSE.

Range.	Block.	Date of fire.	Year of protection.	Area burned.	Remarks as to cause of fire.
			Dehra Dun Division.		
Jumna ...	Tauli Langha ...	8th May, 1889,	1887	25	Probably an incendiary fire.
Malhán ...	Malhán ...	28th Do. ...	1884	120	Fire crossed the watershed from the Saháranpur Division.
	Kaluwala ...			337	
	Kalianpur ...			2,272	
Lachiwála,	Maidan ...	30th April, 1889,	1877	10	Fire crossed from zamíndári forest and also is thought to have been caused by some Shikári.
,,	Ladwakot ...	5th May, 1889,	,,	73	Probably caused by some villagers in the neighbourhood.
,,	Kalimatti ...	11th Do. ...	,,	135	Do. lighted by the Paled villagers.
,,	Bidhalna ...	21st Do. ...	,,	125	Cause unknown.
,,	Lambi rau ...	6th Do. ...	,,	7½	Probably lighted by a honey seeker.
Ganges ...	Barkot ...	4th May, 1889,	1887	86	Probably caused by some travellers smoking on road.
,,	Kharkhari ...	11th Do. ...	1883	3,070	Crossed from the Saháranpur side.
,,	Koelpura ...				
			Total ...	6,260½	
			Saharanpur Division.		
Western...	Khaironwála ...	28th May, 1889,	1885	1,594	Fire came across from Barkala block.
,,	Barkala ...	Do. ...	,,	2,630	Fire lighted by an incendiary in several places at once.
,,	Sahánsra ...	Do. ...	,,	1,790	Fire came across from Kaluwála block.
,,	Kotri ...	Do. ...	,,	2,650	Ditto ditto.
,,	Kaluwála ...	Do. ...	,,	4,430	Lighted by an incendiary in several places at once.
,,	Sháhjahánpur ...	Do. ...	1887	4,155	Fire came across from Kaluwála block.
,,	Khajnáwar ...	Do. ...	,,	180	Ditto ditto.
,,	Mohand ...	4th May, 1889,	1884	14	Probably lighted by an incendiary.
Central ...	Sukh ...	Do. ...	,,	136	Fire came across from Mohand block.
,,	Bám ...	6th June, 1889,	1880	763	Do. from Betkhan block.
,,	Bethan ...	Do. ...	1882	1,657	Uncertain Probably caused by Gurkhas shooting in the forests.
Eastern ...	Rauli ...	11th May, 1889,	1879	741	Fire crossed from the Ránipur block.
,,	Ránipur ...	Do. ...	,,	3,726	Uncertain Probably lighted by Bhábar grass cutters.
,,	Maiapur ...	Do. ...	1886	29	Fire crossed from the Ránipur block.
,,	Pathri ...	7th Jan., 1889,	1880	350	Do. from the open forest which was burnt by the neighbouring villagers.
,,	Ditto ...	19th Do. ...	,,	2	Fire escaped whilst a fire line was being burnt.
			Total ...	24,847	
			Jaunsar Division.		
Deoban ...	Darna ...	25th Dec., 1888,	,,	10	Caused by a villager of Jádi who went shooting in the Forest, not much damage done.
,,	Chatri ...	8th March, 1889	,,	10	Caused by a villager burning rubbish in his field outside the forest from which it escaped and entered the forest before the fire lines were completed.
,,	Leguna ...	22nd Do. ..	1872	4	Carelessness of shepherds smoking in the forest, a good deal of damage to a deodár plantation was done.
,,	Lorli Cantonment Block.	7th May, 1889,	1880	1	Carelessness of certain sweepers burning rubbish. Offenders not found.
,,	Dharia, Kálsi ...	6th June 1869,	1872	4½	Carelessness of a villager burning rubbish in his field which entered the Government Forest. Little damage done.
,,	Bandla ...	7th Do. ...	1880	½	Same cause as above, only grass burnt.
Deogarh...	Bánpur ...	7th March 1889,	1886-87	500	The cause of this fire has not yet been clearly ascertained, but is supposed to have crossed an imperfectly burnt fireline from outside the forest during the absence of the guard. A great deal of damage was done to young seedlings. The Forest guard was reduced and fined.
,,	Chandna ...	31st March, 1889	1886-87	2	Caused by carelessness of a Gújar carrying fire along a path inside the fire line. Little damage was done.
		Total ...	...	532	
		GRAND TOTAL FOR THE CIRCLE.	...	31,639½	

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

STATEMENT SHOWING TOTAL LENGTH OF ROADS AND NUMBER OF BRIDGES DURING 1888-89.

Class of work.	Dehra Dún.			Saháranpur.			Jaunsár.			Circle.			Remarks.
	New.	Old.	Cost during the year.	New.	Old.	Cost during the year.	New.	Old.	Cost during the year.	New.	Old.	Cost during the year.	
	Mds. chs.	Mds. chs.	Rs.	Mds. chs.	Mds. chs.	Rs.	Mds. chs.	Mds. chs.	Rs.	Mds. chs.	Mds. chs.	Rs.	
Roads 10′ to 20′ ...	7 65	218 10	1,762	...	88 78	*199	...	...	...	7 65	307 8	1,961	*Excluding Rs. 243 received as contribution from the District.
Paths 6′ ...	...	41 70	325	...	9 40	186	...	127 0	561	...	178 30	1,072	
Paths 4′ to 2′ ...	...	16 20	65	0 25	0 11	13	12 10	333 57	2,707	12 35	350 8	2,785	
Total ...	7 65	276 20	2,152	0 25	98 49	398	12 10	460 57	3,268	20 20	835 46	5,818	
	No.	No.	Rs.	No.	No.	Rs.	No.	No.	Rs.	No.	No.	Rs.	
Main bridges ...	...	...	62	...	...	...	...	8	172	...	8	62	
Minor bridges and culverts, &c.	2	6	76	5	3	*207	...	61		7	70	455	*Excluding Rs. 186 received as contribution from the District.
Total	2	6	138	5	3	207	...	69	172	7	78	517	

Appendix J.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

LIST OF BUILDINGS DURING 1888-89.

Division, &c.	For use of—		Offices, stores, &c.	Wells.	Total.	Remarks.
	Officers.	Subordinates.				
Direction.						
Permanent	...	7	3	...	10	
Semi permanent	...	1	2	...	3	
Temporary	...	4	...	...	4	
Total ...	...	12	5	...	17	
Dehra Dun.						
Permanent	7	5	...	2	14	
Semi permanent	10	36	...	...	46	
Temporary	13	28	3	...	44	
Total ...	30	69	3	2	104	
Saharanpur.						
Permanent	3	3	2	5	13	
Semi permanent	...	7	...	...	7	
Temporary	...	18	...	1	19	
Total ...	3	28	2	6	39	
Jaunsar.						
Permanent	11	9	6	...	26	
Semi permanent	5	22	4	...	31	
Temporary	...	30	8	...	38	
Total ...	16	61	18	...	95	
Grand Total ...	49	170	28	8	255	

Appendix K.

FOREST DEPARTMENT, SCHOOL CIRCLE, N.-W. PROVINCES AND OUDH.

STATEMENT SHOWING EXPORT OF TIMBER FROM GOVERNMENT AND PRIVATE FORESTS DOWN THE RIVER GANGES AND JUMNA.

Description of produce.	Government Agency.	Purchasers from Government Forests.	Private Forests.	Total.	Rafting dues.
Ganges River, Dehra Dun Division.					Rs. a. p
Sál timber scantling	...	4,798	1,582	6,380	...
Do. tors and ballis	...	2,795	13,862	16,657	...
Sain timber scantling	...	730	...	730	...
Tun ditto	...	299	241	540	...
Shisham logs and scantlings	...	...	106	106	...
Chír scantlings	...	...	4,076	4,076	...
Kukat timber scantlings	...	844	1,174	2,018	...
Do. tors and ballis	...	...	1,277	1,277	...
Bamboos of all sorts	...	158,760	7,000	165,760	...
Fuel in rafts mds.	...	...	960	960	...
Golas (used in floating timber)	...	...	80	80	...
Total, 1888-89 ...	...	168,226	30,358	198,584	...
Total, 1887-88 ...	...	138,221	17,306	155,527	...
Jumna River, Jaunsar Division.					
Deodár beams	...	...	809	809	...
B. G. Deodár sleepers	...	...	104,165	104,165	...
M. G. ditto	102,015	600	70,905	1,73,520	...
Deodár scantlings	...	84	313	397	...
B. G. Chír sleepers	...	63	12,696	12,759	...
M. G. ditto	...	145	901	1,046	...
Chír karris	...	1,19,064	117,857	236,921	...
B. G. Kail sleepers	...	382	..	82	...
Kail karris	...	...	651	651	...
Pieces of Kon's	...	...	475	475	...
Scantlings and ballis	...	...	75,801	75,801	...
Total, 1888-89 ...	102,015	120,038	384,573	606,626	13,794 13 2
Total, 1887-88 ...	101,894	87,372	365,925	658,225	14,249 0 0

ORDERS OF GOVERNMENT.

No. $\frac{851F.}{965-14}$ OF 1889.

RESOLUTION.

REVENUE (FORESTS) DEPARTMENT.

Dated Allahabad, the 8th November, 1889.

READ—

Annual Progress Reports of the Administration of the Forest Department, North-Western Provinces and Oudh, for the year ending 31st March, 1889.

OBSERVATIONS.—The volume containing the reports of the three Circles was received from the Superintendent, Government Press, on the 25th September, 1889. The reports were due in this office on the 15th July. That for the Central Circle is dated the 30th July, 1889; that for the Oudh Circle, 15th August, 1889; and that for the School Circle, 1st August, 1889. In the Oudh and School Circles the delay was due in both cases to the sudden illness of the Conservators, Captain Wood and Colonel Bailey, and their departure on leave at the time when the report became due.

2. The Oudh and Central Circles remained in charge of Captain Wood and Mr. Bagshawe, respectively, throughout the year, and Mr. Fisher and Colonel Bailey had charge of the School Circle. Mr. Greig, Conservator of the Central Circle, was compelled by ill-health to retire. His energy and unwearied devotion to the practical duties of his charge gave high value to his services, and the Government and the officers of his Department alike regretted the necessity that led to his resignation.

3. The areas of the reserved forests in square miles at the beginning and close of the year are given on the margin. In the Oudh Circle there was no change. The reduction of 12 square miles in the Naini Tal Division of the Central Circle is due to the re-calculation of the area from the four-inch maps and the exclusion of demarcated village lands within forest bounds formerly included within the gross forest area. The small increase of 492 acres in the School Circle was occasioned by the inclusion, on the one hand, of the Bandla, Kothali, and Raura forests in Jaunsár (508 acres), and by a reduction, on the other, of 16 acres in Dehra Dún, the revised areas given in the working plan having been adopted.

Area of reserved forests in square miles.

Circles.	1st April, 1888.	31st March, 1889.
Central	1,604	1,592
Oudh	1,203	1,203
School	800½	801
Total ...	3,607½	3,596

4. The boundaries of the Central Circle are as a rule in good order; but in both the Jhánsi and Ganges Divisions much new demarcation was required. The survey in the Jhánsi Division has brought to light several discrepancies which are under settlement, and additional pillars are being built. In the Oudh Circle the greater portion of the boundaries was inspected by Divisional Officers: nearly 20 miles of

new ditching were completed, and 65 miles of the Nepál boundary cleared. By the introduction of the railway into the Kheri district the value of land has increased, and it is said that landlords are combining to dispute the forest boundary. Three cases occurred during the year. The Nepál authorities have again done little to keep the boundary clear on their side; in the Gonda Division they have done nothing to keep clear the stipulated 30 feet. This has been the subject of separate correspondence. In the School Circle the majority of the boundary pillars are in good order, the others are under repair or being re-built. Of the 703 miles of artificial boundary, 634 miles were inspected and found in good order. Two of the boundary disputes with adjoining proprietors have been decided; but there are a few others which are under inquiry. The inner demarcation of the Jaunsár forests cost Rs. 1,700. The total expenditure in the three Circles on account of demarcation was Rs. 6,804,* as compared with Rs. 4,852 in the previous year.

Circles.	Rs.
*Central	2,925
Oudh	1,566
School	2,313

5. *Surveys, Working Plans, &c.*—The expenditure under this head in each Circle, compared with that of the preceding year, was as follows:—

Circle.	1887-88.	1888-89.
	Rs.	Rs.
Central	319	230
Oudh	1,640	7,676
School	4,140	279
Total	6,099	8,185

In the Central Circle, the boundary of the proposed reserve in Gagar-Niglat has been surveyed, and the field work in Dolwar—Morar forests (Naini Tal Division) has been completed. In the Udepur and Chandi forests (Ganges Division) the revision of the boundary has been completed. Colonel Sandeman's Revenue Survey Party in Jhánsi has undertaken the survey on an eight-inch scale of the forests in that district, and most of the boundaries had been surveyed by the close of the season. In the Lalitpur Division only will the forests of this Circle remain unsurveyed, and as the Revenue Survey Party is making a traverse survey of the district in connection with Jhánsi, the Conservator purposes applying for a survey of the forests in the district. The Kohtri plan of operations was under preparation. The Ganges working plan and the Rehar five-year plan of operations were sanctioned during the year. In the Oudh Circle there are no working plans for the Pilibhít, Bhira, Bahraich, and Gonda forests. The Kheri working plan has been completed, and is under the consideration of the Inspector-General of Forests. The Gorakhpur plan is under preparation, and will be submitted shortly. In the School Circle, the Dehra Dún working plan came into force during the year. The Saháranpur plan has not yet been framed. The plans of the Tehri-Garhwál leased forests, the Deoban Range, and the Mandali forest as modified, were sanctioned during the year. The

proposal of the Conservator to lease and manage departmentally certain forests lying within the Chakráta Cantonment was not approved by the Military authorities. Mr. Hearle's working plan of the Jaunsár chír forests is still with the Inspector-General.

6. The value of these plans is undoubted. Without them Government has no real information as to the value of its forests, the prudence or improvidence of the management, and the measures desirable on a considerate forecast of the capacities of individual forests and the requirements of the several markets. A large amount of valuable work has been done for these Provinces in this branch of Forest administration during the last five years; but the Lieutenant-Governor has had occasion more than once to comment on the excessive length and elaboration of the plans submitted for his approval. The markets of India do not present a very steady or constant demand, and the plans are apt to err in the anticipation that these markets will adapt themselves precisely to those measures which the Surveying Officer indicates as most advantageous in theory to the development and progress of the forest. This mistake is illustrated in a very marked manner in the report this year from the School Circle. In a Circle where scientific requirements and practical knowledge should have been most skilfully adjusted, it appears that in the first year of the Dehra working plan the prescribed thinnings could not be carried out, because the establishment of Range Officers was inadequate; and the prescriptions for working a bamboo forest failed for some other reason not stated. Again, in Kansra the timber marked by the working plan was unsaleable, and other wood had to be substituted. It is quite possible that in all these cases the deviation from the working plan was right and proper; but if it was so, these incidents are an illustration of the necessity of making the plans simple and to some degree elastic, and of carefully considering beforehand how far the professional scheme of improvement may be varied to meet the changing condition of the market.

7. *Establishment.*—The Conservator of the Central Circle remarks that he hopes that the scheme for revising the upper subordinate establishment of Sub-Assistant Conservators and Rangers will soon be sanctioned. The 22 ranges in the Circle have been in charge of four rangers and 18 foresters. In the Oudh Circle the re-organisation of the subordinate staff was sanctioned by the Government of India after the close of the year, and the revision will have effect from the 1st October, 1889; but this Conservator is also of opinion that the forests cannot be fully worked without a strengthening of the superior staff. In the School Circle the seven rangers are said to have done excellent work. The foresters, some of whom are in charge of ranges, are well reported on, except one, who was reduced to a lower grade. The forest guards generally did well: a few had to be punished by dismissal for conniving at theft and bribery. One forester obtained the forester's certificate, and several of the students not belonging to the Circle were temporarily attached to Dehra Dún and Jaunsár Divisions.

8. *Breaches of forest law.*—The following table gives the principal details :—

Prosecution for breaches of forest law.

Circle.	Cases before the Courts.	Prosecutions.				Cases compounded.	
		Convictions.		Acquittals.			
		Cases.	Persons.	Cases.	Persons.	Number of persons.	Amount received in compensation.
							Rs.
Central	48	36	116	11	55	872	2,548
Oudh	74	70	142	4	14	253	1,280
School	10	7	12	3	4	198	808
Total ...	132	118	270	18	73	1,323	4,636
Total for 1887-88	162	126	244	33	100	1,379	4,414

There has again been a decrease in the number of cases brought before the Courts compared with the previous year. In the Garhwál and Ganges Divisions the changes in the rules for bamboo-cutting have worked well, and led to a decrease in the number of cases. There was one bad case of deliberate firing of the Horai forests in the Kumaun Division, for which six months' imprisonment was awarded. In the Oudh Circle the greater number of cases were for unauthorised felling and illicit grazing in Bahraich and Gonda. In cases compounded there has been a small increase compared with last year. In the School Circle the number of cases has doubled; five of these were cases of theft of sleepers in the Jaunsár Division. The other cases were concerned with unauthorised fellings, injury to forests by fires, and illicit grazing. The relations between the Department and the inhabitants of neighbouring villages are reported to be generally good.

9. *Forest fires.*—The following statement compares the fire conservancy operations of the year with those of 1888 :—

Fire conservancy operations.

Circle.		Area attempted to be protected.	Area actually protected.	Failures.	Percentage of failure.	Cost during the year.	Cost per acre.
		Acres.	Acres.	Acres.		Rs.	Pies.
Central ...	1887-88 ...	407,841	400,694	7,147	1·78	17,935	8·44
	1888-89 ...	427,212	424,615	2,597	0·60	18,819	8·45
Oudh ...	1887-88 ...	487,819	451,577	36,242	8·02	13,719	5·39
	1888-89 ...	487,919	437,213	50,706	10·39	11,525	4·53
School ...	1887-88 ...	396,381	377,623	18,758	4·96	7,353	3·7
	1888-89 ...	399,660	368,020½	31,639½	7·90	6,507	3·12
Total ...	1887-88 ...	1,292,041	1,229,894	62,147	5·05	39,007	5·3
	1888-89 ...	1,314,791	1,229,848½	84,942½	6·42	36,851	5·38

These figures show an increase of 22,700 acres to the area under fire conservancy; and 6½ per cent. of the area attempted to be protected was burnt, compared with 5 per cent. in the previous year. The area

actually protected diminished in the Oudh and School Circles, and increased by 24,000 acres in the Central Circle. The cost of protection was about the same, though the Oudh Circle shows a small decrease. The late winter rains and the early break of the monsoon reduced the risk of fire considerably. Fires in the Naini Tal Division have been diminished by the completion of new and in some cases widened fire lines. In the Garhwál and Ganges Divisions the rates were lowered. In Jhánsi and Lalitpur the continued success was most satisfactory, while the expenditure was almost nominal. In the Oudh Circle there were few fires, except in the Bahraich and Pilibhít Divisions. The most serious fire of the season was in the Bahraich Division, where 19,200 acres of the Nishángara block were burnt; but fortunately, owing to the density of the forest, the damage was not great. In connection with this fire, one man was sentenced to three months' imprisonment and two to one month each. The other large fire was in block No. 3 of the Gonda Division: 2,986 acres were burnt. The fire came from the Nepál forests, notwithstanding the representation made by the Government of India to the Nepál Darbár last year. The fires in Pilibhít were so numerous as to call for special remark, but have done little harm. In the School Circle there were two extensive fires in the Kalianpur and Koelpura blocks in the Dún Division; both crossed the Siwáliks from the Saháranpur side, and show the necessity for an efficient fire line along the ridge of the Siwáliks. In the Saháranpur Division the areas burnt exceeded those of the previous year by 11,240 acres. Of the 16 fires in this division 12 were evidently incendiary. The most serious was that of the 28th May and the two following days in the Barkala and Kaluwála blocks of the Western Range, where the grass was set fire to in several places: this fire extended over 20,000 acres. The efforts of the District and Forest authorities to discover the authors of these repeated fires have failed, and strong measures are necessary to put a stop to this very serious and organised mischief. The suspension of the grazing privileges of certain villages has been approved by Government. In the Jaunsár Division the result is very favourable: the failures amounting to only 532 acres, compared with 1,114 acres in the previous year.

10. *Grazing.*—The receipts under this head rose from Rs. 89,220 in the previous year to Rs. 1,02,728 in the year under review. There are still arrears in the Saháranpur district, amounting to Rs. 3,220. In the Central Circle the area closed to grazing was 27·89 per cent. of the total forest area, in the Oudh Circle 44·59 per cent., and in the School Circle it was 29½ per cent. Throughout the Central Circle grazing is light, and the charges almost nominal, being 5·26 pies per acre. The Oudh Circle afforded grazing for 330,754 cattle; the dues were realised without trouble; and the collection will in future be simplified by the introduction of the plan successfully followed in Saháranpur and Dehra of a periodical settlement with the head-men of villages. The School Conservator reports that the recovery of the grazing fees in his Circle now presents no difficulty; and the Gújars have ceased to trouble, since they have been permitted to lop certain specified kinds of trees and climbers on payment of an extra rupee per buffalo. The comple-

tion of these arrangements has certainly helped to improve the relations of the country-people and the officers of the Department.

11. *Natural and artificial reproduction.*—In the Central Circle there has been a heavy and general fall of sál seed and an absence of seed in the chír forests, and there has been no severe frost. Bamboos seeded more extensively than in ordinary years in the Ganges Division and Garhwál; but there was no general seeding in any part of Kumaun. In Oudh the natural reproduction in the closed forests is very good, except in parts of Bahraich and Gonda. The protection from fire is everywhere most marked in an improvement in the soil, the existing young growth, and the appearance of numerous seedlings. In the School Circle the sál tree seeded fairly well and the chír seedlings all over the hills are doing well, especially where protected from fire and grazing. In many of the raus shisham seedlings are appearing and doing excellently under the shelter of fire protection. The reproduction of the kharsu oak is also satisfactory. The seedling of deodár was not general, and as in the Central Circle there was no chír seed. The expenditure under artificial reproduction in each Circle is given on the margin. In the Central Circle artificial reproduction in regular plantations has been confined to the hill forests, where the demand is out-growing the resources. Fair success has been attained, and no unnecessary work has been attempted. The Ránikhet nursery continues to be well and economically managed by Mr. Craw, and in many cases he has supplied gardeners trained at Chaubattia. In the Oudh Circle the sissu plantations in the Gorakhpur Division have been increased and are doing well, except the Madhaulia plantation. In the School Circle the sissu plantations are not thriving in some parts, nor are the sál plantations in the Dún, and most of these will be abandoned. In Jaunsár the blank areas in the nurseries were replanted and some new nurseries were made. Several specimens of the Scotch pine have been planted and are doing well. The cultivation of vegetables in the Chakráta gardens, which was noticed in the review last year, will be discontinued. The expenditure on the garden has been reduced from Rs. 1,485 to Rs. 845. The cutting of creepers was continued in all Circles, but over a smaller area in the Oudh Circle than seems desirable.

Circles.	Rs.
Central ...	3,060
Oudh ...	2,502
School ...	1,735

12. *Communications and buildings.*—The expenditure incurred on communications and buildings during the year is given in the following form:—

Circles.	Roads and bridges.	Buildings.	Other works.	Total.	Percentage on gross expenditure of the year.
	Rs.	Rs.	Rs.	Rs.	
Central	35,028	16,651	470	52,149	2·0
Oudh	16,494	12,316	1,072	29,882	8·1
School	6,629	13,728	198	20,555	7·7
Total ...	58,151	42,695	1,740	1,02,586	12·2
Total for 1887-88 ...	46,581	43,147	2,372	92,100	11·1

The outlay in the Central Circle was larger than in the previous year; 108 miles of new cart and bridle-roads and pathways were made, and 1,534 miles kept in repair; 31 new buildings were constructed, providing accommodation for officers and subordinates, and 125 were repaired. The most important works were 17 miles of cart-road in Kumaun to open out the Kalannia nadi forests, and six miles in Garhwál to serve the Adnála basin of the north Patli Dún. In the Oudh Circle 147½ miles of new roads were made, and seven wooden bridges were constructed in the Bahraich forests. Two sets of out-houses were erected for the rest-houses in the Bhira sub-division, and a large shed for the storage of grass for the Lucknow market. In Gonda a second class rest-house with its out-offices was completed during the year, and in the Gorahkpur Division the offices at Chaumukha. Wells for drinking purposes were also in hand. In the School Circle several new roads and bridges were under construction, and the usual repairs were executed. Under buildings, the largest expenditure was on account of the divisional buildings at Chakráta. Except in the School Circle, the expenditure was higher than in the previous year. The construction of roads in forests which are newly opened to the market is of course essential; and provision is needed for the shelter and accommodation of the servants of the Department; but it is necessary to repeat the remark that outlay on buildings should be very jealously watched and limited by the several Conservators.

13. *Yield and working.*—The following abstract of Forms Nos. 54 and 55 exhibits the timber, fuel, and minor produce "removed" from the forests during the year, and the agency by which it was removed:—

	Cubic feet (000s omitted).							
	Class.				*By whom removed.*			
	Total outturn.	Selection fellings.	Clearances.	Thinnings.	Government agency.	Purchasers.	Free grantees.	Right-holders.
Central Circle.								
Timber ...	10,01,	6,98,	3,03,	...	13,	6,72,	47,	2,68,
Firewood ...	14,16,	3,64,	10,52,	...	2,79,	9,39,	1,96,	1,
Minor produce...	Rs. 1,61,178	...	...	...	Rs. 4,411	Rs. 1,51,401	Rs. 1,234	Rs. 4,132
Oudh Circle.								
Timber ...	24,62,	2,59,	21,31,	70,	3,57,	5,26,	13,89,	1,88,
Firewood ...	16,66,	...	12,92,	3,73,	2,76,	8,20,	4,44,	1,24,
Minor produce...	Rs. 1,12,321	...	...	...	Rs. 11,274	Rs. 85,855	Rs. 10,820	Rs. 4,372
School Circle.								
Timber ...	7,83,	5,62,	12,	2,08,	2,57,	4,27,	3,	95,
Firewood ...	25,57,	1,25,	21,50,	2,82,	4,27,	4,61,	...	16,68,
Minor produce...	Rs. 62,983	...	...	...	Rs. 945	Rs. 53,700	...	Rs. 8,338
Gross total.								
Timber ...	42,46,	15,19,	24,46,	2,78,	6,27,	16,25,	14,39,	5,51,
Firewood ...	56,39,	4,89,	44,94,	6,55,	9,82,	22,20,	6,40,	17,93,
Minor produce...	Rs. 3,36,482	...	...	...	Rs. 16,630	Rs. 2,90,956	Rs. 12,054	Rs. 16,842

Timber to the amount of 4,246,000 cubic feet, fuel to the amount of 5,639,000 cubic feet, and minor produce to the value of Rs. 3,36,482 were removed from the forests during the year. For the previous year the corresponding figures were: timber 5,108,000 cubic feet; fuel 6,281,000; and minor produce Rs. 3,47,392. These figures include grants of produce to free grantees and right-holders, and both the amounts and value of the produce thus given are uncertain. Omitting

the two last columns of the above table, the removals by Government agency and by purchasers during the last two years are thus contrasted :—

		CUBIC FEET (000S OMITTED).					
		Government agency.			*Purchasers.*		
		Central Circle.	Oudh Circle.	School Circle.	Central Circle.	Oudh Circle.	School Circle.
Timber ...	1887-88 ...	15,	4,12,	2,88,	5,81,	4,28,	5,91,
	1888-89 ...	13,	3,57,	2,57,	6,72,	5,26,	4,27,
Firewood ...	1887-88 ...	2,08,	2,86,	4,46,	9,78,	11,91,	3,70,
	1888-89 ...	2,79,	2,76,	4,27,	9,39,	8,20,	4,61,

Compared with the figures of 1887-88 the output of timber by Government agency was smaller in all three Circles; but that of timber removed by purchasers was greater in all but the School Circle. The removal of fuel by Government agency increased in the Central and decreased in the Oudh and School Circles; removal by purchasers increased in the School and decreased in the Central and Oudh Circles. In other words, there was a diminution in the output both of timber and fuel, and the most marked features of the year were the continued substitution of private for Government agency in the timber operations of the Oudh Circle, and the development of Government agency in the fuel business of the Central Circle. The last is explained by an increase in the Commissariat demand at Ránikhet; the former is only a continuation of a process which has been long at work, and for which the reasons become more and more sufficient.

14. The following statement, abstracted from appendix A, shows the number of trees felled in each Circle, whether by Government agency, contractors, or grantees, and classifies them according as they fall under "selection fellings" of mature trees, or "thinnings," or "clearances :"—

Statement of trees felled.

Circle.	*Selection fellings.*		*Thinnings.*		*Clearances.*		*Total.*	
	Number of trees.	Cubic feet.	Number of trees.	Cubic feet.	Number of trees.	Cubic feet.	Number of trees.	Cubic feet.
Central ... 1888-89...	74,814	959,000	...	...	14,545	94,000	89,359	1,053,000
Central ... 1887-88...	50,064	776,000	2,421	1,000	7,000	26,000	59,490	803,000
School ... 1888-89...	11,491	813,000	215,347	476,000	20,053	59,000	246,891	1,349,000
School ... 1887-88...	13,716	985,000	67,767	271,000	3,830	13,000	85,313	1,269,000
Oudh ... 1888-89...	3,317	259,000	286,329	444,000	916,375	3,424,000	1,206,021	4,128 000
Oudh ... 1887-88...	5,568	364,000	130,594	313,000	1,449,738	5,137,000	1,585,900	5,814,000

In the Central Circle there is a large increase under "selection fellings" and "thinnings," due to fellings of old unsound trees covering or injuring advance growth, and to strip or coppice cuttings in Rehar under the recently approved plan of operations. In the School Circle there was a decrease under "selection fellings," but a very large

increase under "thinnings" and "clearances," occasioned mainly by the extended operations in the Dún under the working plan. In the Oudh Circle there is a decrease under "selection fellings" and "clearances" and an increase under "thinnings." A smaller number of sál and asaina trees was cut down, and the demand for firewood in the Pilibhít and Kheri districts was lessened.

15. The value of timber and fuel in stock in the departmental depôts at the beginning and end of the year is shown in the following abstract from Form No. 57 :—

Depôt stocks of timber firewood.

Circle.		*At beginning.*			*At end.*		
		Quantity.		Value.	Quantity.		Value.
				Rs.			Rs.
Central ...	Timber ...	C. ft.	8,750	655	C. ft.	7,654	427
	Firewood ...	Mds.	354	31	Mds.	846	77
Oudh ...	Timber ...	C. ft.	1,402,280	4,04,802	C. ft.	1,300,495	475,461
	Firewood ...	Mds.	159,170	26,225	Mds.	65,772	9,905
School ...	Timber ...	C. ft.	139,526	1,12,924	C. ft.	147,255	100,863
	Firewood ...	,,	227,478	22,044	,,	170,952	11,772

The Central Circle shows the small stock of timber, which is a consequence of closing departmental timber works; but, as noticed above, the fuel operations were increased by the demands of the Commissariat. The value of timber in stock in the Oudh Circle has increased as inferior timber has been sold; although the cubical contents are lower, the value of the timber is higher. The accumulated stock of firewood has been worked off by better arrangements for sale both at Lucknow and Bahramghát. In the School Circle, on the other hand, though there is an increase in the cubical contents of timber in stock, there is a decrease in value. The number of metre-gauge sleepers and of deodár and pine scantlings on hand in the Jaunsár Division is very large. The Commissariat at Chakráta and the Roorkee Workshops increased their consumption of firewood.

16. The produce of the forests and its estimated value is abstracted from appendix B as follows :—

		(000s OMITTED FROM CUBIC FEET AND RUPEES.)					
		Central Circle.		*Oudh Circle.*		*School Circle.*	
		Cubic feet.	Rupees.	Cubic feet.	Rupees.	Cubic feet.	Rupees.
Timber...	1888-89,	1,001,	3,08,	2,462,	4,10,	783,	3,25,
	1887-88,	721,	2,77,	3,240,	5,05,	1,029,	3,24,
Firewood	1888-89,	1,416,	63,	1,666,	36,	2,557,	93,
	1887-88,	1,426,	51,	2,574,	40,	2,775,	1,05,
Grazing and minor produce.	1888-89,	...	1,61,	...	1,12,	...	63,
	1887-88,	...	1,60,	...	1,33,	...	55,

There has been an increase under all heads in the Central Circle. In Oudh there has been a decrease under all heads. Under timber it is due to lessened fellings, so also under firewood the supplies from the forests were deliberately reduced owing to the large stock on hand. The decrease in grazing dues is said to be nominal, and caused by a difference of calculation in the free grazing of rightholders. In the School Circle the value of the outturn is practically the same as that of last year.

17. The Conservators of Forests were asked by the Inspector-General of Forests to notice briefly in their annual reports what action, if any, was contemplated in regard to the introduction of portable tramways for the extraction of forest produce. Their reports contain full information on the subject; but the only lines they mention as commercially practicable are from Kotdwára to Najíbabad in the Bijnor district, from Mailani to Duduaghát in Kheri, and from Nishángara to the Sarda in Bahraich. The construction of the second of these lines is in consideration with the Agent of the Bengal and North-West Railway.

18. *Financial results.*—The financial results of the year's operations are shown in the appended forms:—

Receipts and Expenditure.

Circles.	*Receipts.*					*Expenditure.*					*Surplus.*				
	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central ...	4,92,497	4,43,133	5,78,023	4,60,150	5,32,833	2,61,912	2,64,479	2,77,117	2,37,543	2,54,400	2,30,585	1,78,654	3,00,906	2,22,907	2,78,433
Oudh ...	7,77,031	6,81,712	6,58,674	4,29,870	5,39,654	5,50,758	5,03,197	3,75,120	3,14,439	3,16,879	2,26,263	1,78,515	2,83,554	1,15,431	2,22,775
School ...	3,02,801	3,36,649	3,36,859	3,57,064	3,90,315	2,07,432	2,06,842	2,67,343	2,77,592	2,67,470	95,369	1,29,807	69,516	79,472	1,22,845
Total ...	15,72,319	14,61,494	15,73,556	12,17,384	14,62,802	10,20,102	9,74,518	9,19,580	8,29,574	8,38,749	5,52,217	4,86,976	6,53,976	4,17,810	6,24,053

Receipts and expenditure under the headings of departmental timber operations, other revenue, and formation, &c., of forests.

Circles.		*Departmental timber operations.*			*Other revenue.*			Formation, protection, and improvements.	Net surplus.
		Receipts.	Charges.	Surplus.	Receipts.	Charges.	Surplus.		
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central ...	1887-88 ...	43,748	37,295	6,453	4,16,702	99,278	3,17,424	1,00,970	2,22,907
	1888-89 ...	50,668	31,489	19,179	4,82,165	1,09,687	3,72,478	1,13,224	2,78,433
Oudh ...	1887-88 ...	2,37,965	1,64,309	73,656	1,91,905	71,801	1,20,104	78,329	1,15,431
	1888-89 ...	3,25,267	1,49,040	1,76,227	2,14,387	78,346	1,36,041	89,493	2,22,775
School ...	1887-88 ...	2,28,279	1,40,581	87,698	1,28,885	31,632	97,153	1,05,370	79,472
	1888-89 ...	2,46,215	1,50,359	95,856	1,44,100	30,487	1,13,613	86,624	1,22,845
Total ...	1887-88 ...	5,09,992	3,42,185	1,67,807	7,37,492	2,02,711	5,34,681	2,84,678	4,17,810
	1888-89 ...	6,22,150	3,30,888	2,91,262	8,40,652	2,18,520	6,22,132	2,89,341	6,24,053

Details of receipts under principal heads.

Circles.	Timber and other produce removed from the Forests by Government agency.		Timber and other produce removed from the Forests by consumers or purchasers.		Confiscated, drift and waif wood.		Forests not managed by Government.		Miscellaneous.		Total in 1888-89.
	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central ...	43,748	50,668	4,05,682	4,77,563	1,232	1,376	...	...	9,787	3,226	5,32,833
Oudh ...	2,32,733	3,21,283	1,75,396	1,97,409	10,709	10,588	...	...	11,032	10,374	5,39,654
School ...	2,28,280	2,38,790	1,05,994	1,28,110	4,635	7,425	14,399	13,795	3,827	2,195	3,90,315
Total ...	5,04,761	6,10,741	6,87,072	8,03,082	16,576	19,389	...	13,795	24,646	15,795	14,62,802

Expenditure on conservancy and works.

Circles.		Timber and other produce removed by Government agency.	Timber and other produce removed by consumers and purchasers.	Confiscated drift and waif wood.	Rent on leased forests.	Live stock, stores, tools and plant.	Communications and buildings.	Demarcation, improvement and extension of forests.	Miscellaneous.	Total.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central...	1887-88...	27,735	23,002	...	994	9,391	44,361	23,029	846	1,29,358
	1888-89...	22,803	23,759	...	610	10,859	52,149	26,071	2,208	1,38,459
Oudh ...	1887-88...	1,40,692	13,608	3,582	...	7,036	23,232	22,207	3,562	2,13,919
	1888-89...	1,22,559	13,768	5,613	...	6,560	29,882	28,895	4,016	2,11,293
School ...	1887-88...	1,18,966	1,683	4,569	11,501	4,095	24,508	19,553	*5,801	1,90,676
	1888-89...	1,23,152	2,653	2,692	11,150	4,018	20,555	17,056	†6,947	1,88,223
Total ...	1887-88...	2,87,393	38,293	8,151	12,495	20,522	92,101	64,789	10,209	5,33,953
	1888-89...	2,68,514	40,180	8,305	11,760	21,437	1,02,586	72,022	13,171	5,37,975

* Includes Rs. 2,334, being expenditure on forests not managed by Government.

† Includes Rs. 3,417, being expenditure on forests not managed by Government.

Expenditure on Establishment.

Circles.	Salaries.		Travelling allowance.		Contingencies.		Total.	
	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central ...	91,747	97,885	11,675	12,767	4,763	5,290	1,08,185	1,15,942
Oudh ...	81,437	86,644	13,452	13,709	5,630	5,232	1,00,519	1,05,585
School ...	72,727	67,122	9,192	6,807	4,997	5,319	86,916	79,248
Total ...	2,45,911	2,51,651	34,319	33,283	15,390	15,841	2,95,620	3,00,775

19. The receipts of the three Circles amounted to Rs. 14,62,802 against Rs. 12,47,384 in the previous year, and the expenditure was Rs. 8,38,749 against Rs. 8,29,574. The net surplus was Rs. 6,24,053, or Rs. 2,06,213 in advance of the last year; and with the exception

of the year 1886-87 (Rs. 6,53,976), the largest surplus since 1883-84. In the Central Circle there was a large demand for timber, especially for green first class sál: it was so brisk that exports had to be checked in order to keep within the working plans. The demand for railway sleepers is falling off, and the figure now stands normal. There was a considerable increase in the Naini Tal Division, attributed especially to the movement of troops raising the demand for fuel: building timber was also in considerable demand. The large increase in the Oudh Circle is attributed to the larger sales at Bahramghát, the sale of standing timber, poles, &c., from the strip fellings for the past two years in the Bahraich Division, and to the more lively demand for timber owing to the reduced importations from Nepál. There were also large sales of firewood from the stock in hand. The demand for baib grass for paper manufacture has also increased, and arrangements were made for its sale to the mills in Calcutta. In the School Circle better prices obtained, especially at the auction sales, during the year, and the demand for timber was great both from the Government for building purposes at Chakrata and for the Canal Department, and from private purchasers. A large quantity of drift timber on the Ganges was sold, and brought in better prices. A bill for Rs. 13,606 for sleepers supplied to the Rájputána and Malwa Railway remained unpaid at the close of the year, which would have increased the surplus by this amount.

20. The financial results of each Circle may now be considered. The receipts of the Central Circle amounted to Rs. 5,32,832 against Rs. 4,60,450 in the previous year; the charges were Rs. 2,54,400 against Rs. 2,37,543, and the surplus Rs. 2,78,433 against Rs. 2,22,907. Of the gross receipts, departmental operations yielded Rs. 50,668 against Rs. 43,748. The charges under this head amounted to Rs. 22,803 against Rs. 37,295. The revenue from other sources amounted to Rs. 4,82,165 against Rs. 4,16,702, the chief items being timber Rs. 3,10,872 against Rs. 2,41,775. The only decrease is under bamboos; and this was occasioned by the steps taken during the last two years to compel a strict rotation in the cutting of bamboos. The immediate loss of revenue will be well repaid by the measures adopted.

21. The receipts of the Oudh Circle were Rs. 5,39,654 against Rs. 4,29,870 in the year 1887-88; the charges aggregated Rs. 3,16,379 against Rs. 3,14,439; and the surplus Rs. 2,22,775 against Rs. 1,15,431. Of the gross receipts Rs. 3,21,283 were derived from departmental operations against Rs. 2,87,965 in 1887-88; the charges under this head were Rs. 1,22,559 against Rs. 1,64,309; the net receipts were thus Rs. 1,98,724 against Rs. 73,656. The revenue from other sources aggregated Rs. 2,18,371 against Rs. 1,91,905 in 1887-88, of which the receipts for timber came to Rs. 1,03,161 against Rs. 73,773. There has been a considerable increase under all heads except other minor produce, which shows a reduction of Rs. 8,749. It may then be said that Captain Wood has so far redeemed the promise made in last year's report, to keep up the net surplus to two lakhs of rupees in an ordinary year notwithstanding the fall in the demand for sleepers. He has developed

the sales of timber and firewood, and has carried the supply of grass and other material for the manufacture of paper as far as Calcutta.

22. In the School Circle the receipts amounted to Rs. 3,90,315 against Rs. 3,57,064 in the year 1887-88, the charges were Rs. 2,67,470 against Rs. 2,77,592, and the surplus Rs. 1,22,845 against Rs. 79,472. Of the gross receipts Rs. 2,38,790 were derived from departmental operations, against Rs. 2,28,279 in 1887-88, the charges under this head were Rs. 1,23,152 against Rs. 1,40,581. The net receipts were thus Rs. 1,15,638 against Rs. 87,698. The revenue from other sources amounted to Rs. 1,51,525 against Rs. 1,28,785 in the preceding year. The receipts of this Circle have been increasing gradually since the year 1883-84, when they were Rs. 2,71,565, and they now stand at Rs. 3,90,315, or an increase of about 44 per cent. in the six years. The expenditure, which was commented on last year as being high, has been reduced from Rs. 2,77,592 to Rs. 2,67,470.

23. On the whole, the administration of the year has been good; the sources of income have been carefully looked after, the fellings in the forests have not exceeded as a rule the limits of the working plans, the old stocks have been reduced, new trade in items of the minor produce has been developed; at the same time expenditure has been reduced and a material addition made to the surplus. The officers of the Department are to be congratulated on the generally excellent results which these reports record.

J. WOODBURN,

Chief Secy. to Govt., N.-W. P. and Oudh.

No. $\frac{852F.}{965-15}$.

ORDER.—Ordered that a copy of the above Resolution (with copy of the Report) be forwarded to the Conservators of Forests, Central, Oudh, and School Circles, for information and guidance.

No. $\frac{853F.}{965-16}$.

Ordered, also, that copy (with copy of Report) be forwarded to the Commissioners of the Meerut, Benares, Jhánsi, Rohilkhand, Allahabád, Kumaun, Sitapur, and Fyzabad Divisions, for information.

No. $\frac{854F.}{965-17}$.

Ordered, also, that copy (with copy of Report) be forwarded to the Comptroller-General, Forest Branch, Calcutta, for information.

No. $\frac{855F.}{965-18}$.

Ordered, also, that copy (with copy of Report) be forwarded to the Inspector-General of Forests to the Government of India, for information.

By order, &c.,

J. WOODBURN,

Chief Secy. to Govt., N.-W. P. and Oudh.

No. 216 F., dated Simla, the 25th March 1890.

From—SIR E. C. BUCK, KT., *Secretary to the Government of India,*

To—*The Secy. to the Govt. of the N.-W. Provinces and Oudh, Revenue (Forests) Dept.*

I AM directed to acknowledge the receipt of your letter No. 873-965-19-F., dated the 12th November last, forwarding the Annual Progress Reports of Forest Administration in the North-Western Provinces and Oudh for 1888-89, together with the Resolution of His Honour the Lieutenant-Governor thereon.

2. The volume containing the Reports, due to reach the Government of India on the 1st of September, was not received until the 19th November. All Reports were, however, submitted late to the Local Government. The illness of the Conservators accounted for the want of punctuality in the Oudh and School Circles, but no explanation is given of the late submission of the Report for the Central Circle. In view of the necessity that these Reports should be dealt with before the Inspector General of Forests goes on tour, special importance is attached to their being received on the dates fixed, and the Government of India desires that, in future, arrangements may be made by which the Reports will be more punctually submitted.

3. The alterations made in the areas of forests under the control of the Department were unimportant. At the close of the year the different classes of forests were distributed over the three Circles as follows :—

Circles.	Area, in square miles.				Proportion of Forests to whole area of Province (106,043 square miles).
	Reserved Forests.	Protected Forests.	Unclassed State Forests.	Total.	
					Per cent.
Central	1,592	69*	118	1,779	1·7
Oudh	1,203	...	...	1,203	1·1
School	*801	...	14	815	·8
Total in 1888-89 ...	3,596	69	132	3,797	3·6
„ 1887-88 ...	3,608	73	132	3,813	3·6
Decrease in 1888-89 ...	12	4	...	16	...

* Includes 77 square miles of *Leased* Forests.

The sums expended on demarcation, and the reports on the condition of boundary-marks generally, indicate that the inspection of boundaries and their maintenance in good order have been duly attended to. The information, however, given by each Conservator is in a different form and difficult to summarize. It is proposed in future to require more detailed reports under this head on a uniform plan, and a tabular statement has been suggested in paragraph 2 of the Circular of this Department No. 35-F., dated 17th October 1889, addressed to Local Governments.

It is noticed that the Nipal authorities have again failed to keep their boundary line clear, but as they were only specially communicated with on the subject in January 1889, little could be expected of them during the year under review.

4. The survey of the Jhansi forests, on a scale of 8 inches to one mile, was being carried out by a party of the Revenue Survey Branch; and the Conservator of the Central Circle desires to have a similar survey made by the same agency of the Lalitpur forests, which are the only tracts in his charge remaining unsurveyed. If, as it is understood, the Jhansi work has been carried out at a reasonably low cost, I am to suggest the desirability of utilizing Colonel Sandeman's party while it is employed in the district, and of accepting the proposal of the Conservator. At the same time the Government of India considers that maps on the scale of 4 inches to one mile would probably suffice.

The attention of the Inspector General of Forests will be directed to the last clause of paragraph. 8 (*a*) of the Oudh Circle Report, and he will be instructed to ascertain and report whether the boundaries of the forests in the Pilibhit Division were actually surveyed or copied from small scale maps by the surveyors of the Forest Survey Branch.

5. Although, as recorded in the Government of India's review of the Reports for 1887-88, considerable progress has been made in the preparation of Working-Plans, much remains to be done. In the Oudh Circle no Working-Plans are as yet in force, although Plans for the Kheri and Gorakhpur forests were reported under preparation. These embrace an area of 420 square miles out of 1,203 square miles controlled by the Department. In the Central Circle 577 square miles are managed under Working-Plans, and a Plan was under preparation for a further area of 180 square miles. There remain 1,021 square miles subject to plans of operations mostly for one year only. In the School Circle Working-Plans have been prepared for 471 square miles out of 815 square miles, and no new work appears to have been undertaken during the year under notice. The Working-Plans in force are as a rule drawn up for short periods only, and unless the work of preparing Plans for the remaining forests is pushed on, it will not be completed before the existing Plans call for revision or replacement. The remarks contained in paragraph 6 of His Honour the Lieutenant-Governor's Resolution, on the value of Working-Plans, have been read with interest, and are generally concurred in by the Government of India.

In proportion as more experience is gained in the framing of Working-Plans, the sylvicultural requirements of the forests become better known, and the demands on the forests grow more steady and sure, will the operations prescribed become less speculative. At present with supplies in excess of the demand or a market for only a small portion of the products of a forest, there must be deviations from sanctioned Plans; but one of the advantages of well considered Plans is that works or cultural operations not executed in one year are not lost sight of, but are taken note of and carried out in subsequent years. The first Working-Plans were experimental, and as such they have been elaborate and costly in regard to the data collected and embodied in them; but the provisions of the Plans themselves, which have now to be carried out, should, in the opinion of the Government of India, prove as workable as any directions which with the available knowledge can now be laid down.

6. The conviction of persons charged in five cases with the theft of sleepers in the Jaunsar Division is noticed with satisfaction, as a considerable number of sleepers are stolen every year, and in 1887-88 not a single detection took place.

7. The following statement shows the results of fire-protective measures in the different Circles :—

Circle.	Area, in square miles.			Proportion of Failures to area attempted.	Cost.		Proportion of area under Fire-protection to total area of Reserves.*
	Attempted.	Failures.	Protected.		Per square mile protected.	Per acre protected.	
				%	Rs.	Pies.	%
Central	668	4	664	1	28	8	40
Oudh	762	79	683	10	17	5	36
School	†624	49	575	8	12	4	78
Total in 1888-89 ...	2,054	132	1,922	6	19	6	56
„ 1887-88 ...	2,019	97	1,922	5	20	6	55
Increase or decrease in 1888-89.	+35	+35	...	+1	—1	...	+1

* Proportion to area of Reserved and Protected Forests.

† Includes 77 square miles of *Leased* Forests.

The most serious failure occurred in the Oudh Circle, where the Nishangara block, previously protected for 12 years, was devastated by fire. Three men were punished with imprisonment varying from one to three months. It is understood that these men were not convicted of setting fire to the forest, for which offence the punishments inflicted would have been inadequate, but of having fired grass outside the protected block, from which the latter had not been sufficiently isolated. As already remarked, it was too early to expect results from the clearing of the boundary line on the Nipal side, and the Reports for 1889-90 will, it is hoped, be more favourable as regards protection from fire. The Government of India fully approves of the measures taken to reduce the number of fires in the Saharanpur Division.

8. There is little to record under Plantations and Cultural Operations for the improvement of the forests. These were only carried out on a very small scale, and comprised mainly an addition of 100 acres to the Sissu plantations of the Gorakhpur Division, and of 46 acres to the deodar plantings in the Jaunsar forests.

9. The remarks of the different Conservators on natural reproduction have been completely dealt with in the Lieutenant-Governor's Resolution, but it is observed that the Conservator of the Oudh Circle omits to treat the subject in more than a general way.

Endeavours should be made to reduce the cost of creeper-cutting and to extend operations over larger areas, as pointed out in the Resolution with reference to the Oudh Circle.

10. The outturn of the forests in timber, fuel, bamboos and minor forest produce was smaller than in the previous year, as will be seen from the following comparative statement :—

Year.	Removed by Government Agency.				Removed by Purchasers.				Free Grants.				Removed by Right-holders.				Total.			
	Timber.	Fuel.	Bamboos.	Minor Produce, including Bamboos.	Timber	Fuel.	Bamboos.	Minor Produce, including Bamboos.	Timber.	Fuel.	Bamboos.	Minor Produce, including Bamboos.	Timber.	Fuel.	Bamboos.	Minor Produce, including Bamboos.	Timber.	Fuel.	Bamboos.	Minor Produce, including Bamboos.
	C. ft.	C. ft.	No.	Rs	C. ft.	C. ft.	No.	Rs.	C. ft.	C. ft.	No.	Rs.	C. ft.	C. ft.	No.	Rs.	C. ft.	C. ft.	No.	Rs.
1888-89 ...	628,474	983,921	517,760	16,630	1,626,017	2,221,817	17,067,660	2,90,956	1,440,654	640,704	136,280	12,054	552,279	1,794,800	123,180	16,842	4,247,424	5,641,242	17,844,880	3,35,482
1887-88 ...	715,492	940,316	639,350	12,108	1,600,901	2,539,414	20,049,074	2,86,076	1,822,563	2,347,639	20,560	20,222	847,824	326,204	130,400	29,985	4,986,780	6,153,573	20,839,384	3,48,392
Increase or decrease in 1888-89.	−87,018	+43,605	−121,590	+4,522	+25,116	−317,597	−2,981,414	+4,880	−381,909	−1,706,935	+115,720	−8,168	−295,545	+1,468,596	−7,220	−13,144	−739,356	−512,331	−2,994,504	−11,920

The subject of 'Yield and Working' appears to have been treated by Conservators at unnecessary length, and the chapter, which for the School Circle alone covers 16 pages, is over-burdened with tabular statements of doubtful utility. The Lieutenant-Governor's review is exhaustive, and the Government of India has nothing to add to His Honour's remarks.

11. The Government of India concurs in the satisfaction expressed in the financial results of the year, which show a considerable increase in the gross Receipts, with but little addition to the Expenditure, and a net Surplus of Rs. 6,24,053. This result is very creditable.

The following statement shows the Revenue and Expenditure of each Circle :—

Circle.	Receipts.	Charges.	Surplus.	Proportion of Surplus to Gross Revenue.
	Rs.	Rs.	Rs.	%
Central...	5,32,833	2,54,400	2,78,433	52
Oudh	5,39,654	3,16,879	2,22,775	41
School	3,90,315	2,67,470	1,22,845	32
Total in 1888-89 ...	14,62,802	8,38,749	6,24,053	43
„ 1887-88 ...	12,47,454	8,30,748	4,16,706	33
Increase in 1888-89 ...	2,15,348	8,001	2,07,347	10

and the Receipts and Charges distributed under the three main heads of account stand thus :—

Circle.	Departmental Timber Operations.			Other Revenue.			Formation, Protection, and Improvement of Forests.	Net Surplus.
	Receipts.	Charges.	Surplus.	Receipts.	Charges.	Surplus.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central	50,668	31,489	19,179	4,82,165	1,09,687	3,72,478	1,13,224	2,78,433
Oudh	3,25,267	1,49,040	1,76,227	2,14,387	78,346	1,36,041	89,493	2,22,775
School	2,46,215	1,50,359	95,856	1,44,100	30,487	1,13,613	86,624	1,22,845
Total in 1888-89 ...	6,22,150	3,30,888	2,91,262	8,40,652	2,18,520	6,22,132	2,89,341	6,24,053
„ 1887-88 ...	5,09,992	3,42,185	1,67,807	7,37,392	2,02,711	5,34,681	2,84,678	4,17,810
Increase or decrease in 1888-89.	+1,12,158	−11,297	+1,23,455	+1,03,260	+15,809	+87,451	+4,663	+2,06,243

12. The Governor General in Council entirely approves of the remarks contained in paragraph 23 of the Resolution, and I am to convey the thanks of the Government of India to His Honour the Lieutenant-Governor for the good record of administration set forth in the Reports, and for the very clear and complete review of the progress made during the year.

The commendation earned by the officers of the Department appears to have been well merited, and the Government of India shares the Lieutenant-Governor's appréciation of the services rendered by Mr. G. Greig as Conservator of the Central Circle, and regrets that ill-health should have necessitated his retirement while comparatively young.

No. 217-F.

COPY, with copy of the Report, forwarded to the Inspector General of Forests, for information and guidance, with special reference to the second clause of paragraph 4.

Appendix showing discrepancies noticed in the North-Western Provinces and Oudh Forest Administration Report for 1888-89.

CENTRAL CIRCLE REPORT.

FORM NO. 49.

(Area of Reserved Forests.)

In the column "Excluded or transferred to other heads," the figures entered against the China Range of the Khurpa Tal Forest, Naini Tal Division, and the "Total" of the Naini Tal Division should be 7,551 instead of 3,410 acres. Similarly, against the "Grand Total" of the Circle, the figures should be 7,913 instead of 3,772. The equivalent of 1,018,389 acres, which are entered as the Grand Total area on 31st March 1889, is 1,591 and not 1,592 square miles.

(Area of Protected Forests.)

The equivalent of 44,057 acres, which are entered as the Total Area on 31st March 1889, is 69 and not 68 square miles.

FORM NO. 54-A.

(Outturn of Timber and Firewood under the different descriptions of fellings.)

The results given in this Form for 1888-89 differ from those shown in Appendix A on page 34 of the Report, as follows :—

	Outturn, in cubic feet.			
	Selection fellings.	Thinnings.	Clearances.	Total.
Form No. 54-A	1,062,130	...	94,573	1,156,703
Appendix A	959,457	...	94,503	1,053,960
Difference in Appendix A	—102,673	...	—70	—102,743

The figures given in the second statement on page 18 and in the statements on page 19 of the Report agree with those in Appendix A.

OUDH CIRCLE REPORT.

In the first statement on page 14 of the Report, the total outturn of Timber in 1888-89 by the different descriptions of fellings is shown as 2,462,261 cubic feet, whereas according to Form No. 54 appended to the Report the total outturn was 2,462,265 cubic feet.

FORM NO. 54.

(Outturn of Timber and Firewood.)

The figures (13,506) in the columns "Clearances" and "Total" entered against Bahramghat, and which represent the quantity in cubic feet of drift collections, should be also shown in the column "Government Agency"; otherwise the figures (357,792) entered against "Grand Total Timber" in that column cannot be arrived at.

FORM NO. 55.

(Outturn of Minor Forest Produce.)

In the column "Quantity" under the head "By Purchasers," the *number* (132 scores) of bamboos removed is not given. This information is supplied in the statement in paragraph 51 of the Report, and should have been given in the Form under notice.

SCHOOL CIRCLE REPORT.

In the statement in paragraph 43 of the Report, the total number of trees felled in the Jaunsar Division under "Clearances" in 1888-89 is shown as 10,000, whilst in Appendix A to the Report the number so felled is entered as 10,031.

In the statement in paragraph 49 of the Report, the quantity of timber removed by Departmental Agency in 1888-89 is entered as 257,149 cubic feet, whilst in Form No. 54 apppended to the Report the quantity of timber so removed is shown as 257,179 cubic feet. Similarly, the quantity of fuel removed is entered in the statement as 344,429 cubic feet, whilst in Form No. 54 it is shown as 427,379 cubic feet.

In the statement in paragraph 80 of the Report, the quantity of fuel removed by purchasers in 1888-89 is entered as 544,524 cubic feet, whilst in Form No. 54 the quantity of fuel so removed is shown as 461,574 cubic feet.

FORM NO. 51.

(Fire-Protection.)

The total cost during the season of fire-protection in the Saharanpur Division is shown as Rs. 2,294, whereas the addition of the detailed figures gives a total of Rs. 2,295. For the Jaunsar Division the total cost is entered as Rs. 1,118, and is the same as that given in the statement in paragraph 20 of the Report, but the addition of the detailed figures in the Form under notice gives a total of Rs. 1,418. For the whole Circle the cost is shown as Rs. 6,407, but even assuming that the totals entered against each Division are correct, the grand total obtained by adding them up is Rs. 6,507.

FORM NO. 54.

(Outturn of Timber and Firewood.)

The results from the different descriptions of fellings in 1888-89 given in this Form differ from those shown in Appendix A to the Report, as follows :—

	OUTTURN, IN CUBIC FEET.			
	Selection fellings.	Thinnings.	Clearances.	Total.
Form No. 54	687,869	490,204	2,163,141	3,341,214
Appendix A	813,291	476,138	59,829	1,349,258
Difference in Appendix A ...	× 125,422	—14,066	—2,103,312	—1,991,956

Local Government's Resolution.

In the statement in paragraph 3, the total area of Reserved forests on the 31st March 1889 is (by a typographical error) shown as 2,596 instead of 3,596 square miles.

In the two statements in paragraph 13, the quantity of firewood removed by purchasers in the Central Circle is entered as 839,000 instead of 939,000 cubic feet, and the Grand Total of firewood removed under "Purchasers" is entered in the first of the two statements in question as 2,120,000 instead of 2,220,000 cubic feet.

The following statement gives the details of Receipts under the principal Budget heads for the three Circles in 1887-88 and 1888-89, and should be substituted for the first statement on page 11 of the Resolution, most of the figures in which are incorrect :—

Circles.	Timber and other produce removed from the Forests by Government agency.		Timber and other produce removed from the Forests by consumers or purchasers.		Confiscated, drift and waif wood.		Forests not managed by Government.		Miscellaneous.		Total in 1888-89.
	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central ...	43,748	50,668	4,05,682	4,77,563	1,232	1,376	...	...	9,787	3,226	5,32,833
Oudh ...	2,32,733	3,21,283	1,75,396	1,97,409	10,709	10,588	...	...	11,032	10,374	5,39,654
School ...	2,28,280	2,38,790	1,05,994	1,28,110	4,635	7,425	14,399	13,795	3,827	2,195	3,90,315
Total ...	5,04,761	6,10,741	6,87,072	8,03,082	16,576	19,389	...	13,795	24,646	15,795	14,62,802

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